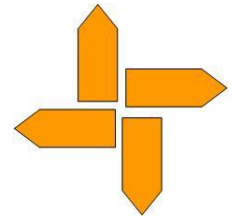




Ministry of Highways
Road Development Authority



**World Bank Funded
Inclusive Rural Road Connectivity and Development
Project (IRCDP)**

**Environmental and Social Management Plans (ESMP)
for Initial ‘Front Runner’ Roads**

**Environmental and Social Management Framework
(ESMF)**

Volume III



Draft Final Report

June 2021

Table of Contents

List of Abbreviations	vi
Chapter 1: Introduction	1
1.1. Background	1
1.2. Non-Compliance with E&S instruments	3
1.3. Monitoring and Reporting Requirements	4
Chapter 2: CESGPs and ESMPs prepared for front runner roads of IRCDP	6
2.1. ESMP of SR 01 - Passaramulla Denagama Nelliwala Road	8
1. Introduction:	10
2. Road Rehabilitation	10
3. Right of Way.....	10
4. Project Implementing Agency.....	10
5. Community Response and Perceived Benefits	11
6. Screening Methodology	11
2.2. ESMP of SR 02 - Welekumbura Seethgala Udakandawatta Kowulketiya Road.....	46
1. Introduction.....	48
2. Road Rehabilitation	48
3. Right of Way.....	48
4. Project Implementing Agency.....	48
5. Community Response and Perceived Benefits	49
6. Screening Methodology	49
7. Screening of Social Impacts	50
2.3. ESMP of SR 03 - Pabahinna Kinchigune road.....	86
1. Introduction.....	88
2. Road Rehabilitation	88
3. Right of Way.....	88
4. Project Implementing Agency:	88
5. Community Response and Perceived Benefits	89
6. Screening Methodology	89
7. Screening of Social Impacts	90
2.4. ESMP of SR 04 – Wikiliya Pansala Road	124
1. Introduction.....	126
2. Road Rehabilitation:.....	126
3. Right of Way.....	126
4. Project Implementing Agency.....	126
5. Community Response and Perceived Benefits:	127

6. Screening Methodology	127
7. Screening of Social Impacts	127
2.5. ESMP of SR 05 - Kumaragama Randola Road (3.4km)	163
1. Introduction	165
2. Road Rehabilitation	165
3. Right of Way	165
4. Project Implementing Agency	165
5. Community Response and Perceived Benefits	166
6. Screening Methodology	166
7. Screening of Social Impacts	167
2.6. ESMP of SR 06 – Berenduwa - Banagala - Kempanawatta - Batewela Road	200
1. Introduction	202
2. Road Rehabilitaton	202
3. Right of Way	202
4. Project Implementing Agency	202
5. Community Response and Perceived Benefits	203
6. Screening Methodology	203
7. Screening of Social Impacts	203
2.7. ESMP of SR07 – Dambuluwana Galathura Road	240
1. Introduction	242
2. Road Rehabilitation	242
3. Right of Way	242
4. Project Implementing Agency	242
5. Community Response and Perceived Benefits	243
6. Screening Methodology	243
7. Screening of Social Impacts	244
2.8. ESMP of SR08 – Devipahala - Deraniyagala Road	280
1. Introduction	282
2. Road Rehabilitation	282
3. Right of Way	282
4. Project Implementing Agency	283
5. Community Response and Perceived Benefits	283
6. Screening Methodology	283
7. Screening of Social Impacts	284
2.9. ESMP of SR09 – Erathna - Thundola Road	322
1. Introduction	324

2. Road Rehabilitation	324
3. Right of Way	324
4. Project Implementing Agency	324
5. Community Response and Perceived Benefits	325
6. Screening Methodology	325
7. Screening of Social Impacts	326
2.10. ESMP of SR 10 – Guruluwana - Ekneligoda Road	364
1. Introduction	366
2. Road Rehabilitation	366
3. Right of Way	366
4. Project Implementing Agency	366
5. Community Response and Perceived Benefits	367
6. Screening Methodology	367
7. Screening of Social Impacts	367
2.11. ESMP of SR 11 – Illukwatta Rathganga Road	408
1. Introduction	410
2. Road Rehabilitation:	410
3. Right of Way	410
4. Project Implementing Agency	410
5. Community Response and Perceived Benefits	411
6. Screening Methodology	411
7. Screening of Social Impacts	411
2.12. ESMP of SR 12 - Dehenakanda Road	448
1. Introduction	450
2. Road Rehabilitation	450
3. Right of Way	450
4. Project Implementing Agency	450
5. Community Response and Perceived Benefits	451
6. Screening Methodology	451
7. Screening of Social Impacts	451
2.13. ESMP of SR 13 - Iddamalgodu Sunderland via Moragala Road	489
1. Introduction	491
2. Road Rehabilitation	491
3. Right of Way	491
4. Project Implementing Agency	491
5. Community Response and Perceived Benefits	492

6. Screening Methodology	492
7. Screening of Social Impacts	493
2.14. ESMP of SR 15 - Paper mill road from Kubugoda Ara junction to Thalawa road Road	530
Environmental and Social Management Plan (ESMP)	531
of	531
(4.15km)	531
7. Screening of Social Impacts	533
2.15. ESMP of SR 16 - Kubugoda Ara - Udagama Road	566
1. Introduction	568
2. Road Rehabilitation	568
3. Right of Way	568
4. Project Implementing Agency	568
5. Community Response and Perceived Benefits	569
6. Screening Methodology	569
7. Screening of Social Impacts	570
2.16. CESGP of SR 17 a & b - Hingura Ara Old Road & Road to Hingura Ara Village Road	604
7. Screening of Social Impacts	608
2.17. CESGP of SR 18 Road from Hingura Ara to Ketagal Ara	639
7. Screening of Social Impacts	643
Appendix 1 - Photographs of Road from Hingura Ara to Ketagal Ara	650
2.18. CESGP of SR 19 Kalagedi Ara Nuge Cross Road	670
7. Screening of Social Impacts	673
Appendix 1 - Photographs of road from Kalagedi Ara Nuge cross Road	681
2.19. ESMP of SR 20 - Chandrika Wewa Outer Circular Road	703
1. Introduction	705
2. Road Rehabilitation	705
3. Right of Way	705
4. Project Implementing Agency	705
5. Community Response and Perceived Benefits	706
6. Screening Methodology	706
7. Screening of Social Impacts	706
Appendix 1- Photographs of Chandrika Wewa Outer Circular Road	714
2.20. CESGP of SR 21 - 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road ... 744	
Codes of Environmental and Social Good Practice (CESGP)	745

of	745
SR 21– 100 Mile Post BosigirigamaThalagahawela via Galwanguwa Road (4.4km)	745
7. Screening of Social Impacts	748
2.21. CESGP of SR 22 - 13 Bund Road from 99 Junction	775
Codes of Environmental and Social Good Practice (CESGP)	776
of	776
7. Screening of Social Impacts	778
2.22. CESGP of SR 23 - Udawalawa to Kolambage Ara via Adaluwa road	806
7. Screening of Social Impacts	809
Annex 1- Photographs of Udawalawa to Kolambage Ara via Adaluwa Road	816
2.23. CESGP of SR 24 - Kolambageara to Bibilegama Yaya Road.....	837
Codes of Environmental and Social Good Practice (CESGP)	838
of	838
(2.6km)	838
7. Screening of Social Impacts	840
Appendix 1- Photographs of Kolabage Ara to Bibilegama Yaya Road	846
1. Preamble	850
2.24. ESMP of SR 25 - 2nd Mile post to Guruara Galwanguwa Road	866
7. Screening of Social Impacts	870
Appendix 1- Photographs of 2nd Mile post to Guruara Galwanguwa Road	877
Appendix 2-Location Map	880
2.25. CESGP of SR 26 - Balagara Junction to Kachchigala Ara Lake Road	902
7. Screening of Social Impacts	905
Chapter 3: Design Drawings	935
Annexes	936
Annex I: Terms of Reference for Recruitment of Contractor Environmental and Social Safeguards Officer (ESSO)	936
Annex II: Guidelines for the Rehabilitation of Borrow Pits	937
Annex III: Detailed Method for Control of Erosion Contract During Construction Phase ..	939
Annex IV: National level stakeholder consultation.....	942
Annex V: Design Drawings	944

List of Abbreviations

ARAP	Abbreviated Resettlement Action Plan
CBO	Community Based Organization
CEA	Central Environmental Authority
CESGP	Code of Environmental and Social Good Practices
DOI	Department of Irrigation
EPL	Environmental Protection License
ESDD	Environmental and Social Development Division
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plans
ESSO	Environmental and Social Safeguards Officer
FFPO	Fauna and Flora Protection Ordinance
FO	Forest Ordinance
GBV	Gender Based Violence
GRC	Greavance Redress Committee
GRM	Greavance Redress Mechanism
GSMB	Geological Survey and Mines Bureau
IML	Insustrial Mining License
IRCDP	Inclusive Rural Connectivity Development Project
LA	Local Authority
LHS	Side Hand Side
NBRO	National Building Research Organization
NGO	Non - Government Organization
NWSDB	National Water Supply and Drainage Board
PCR	Physical Cultural Resource
PHI	Public Health Inspector
PIU	Project Implementation Unit
PMU	Project Management Unit
PPE	Personnel Protective Equipment
PRDA	Provincial Road Development Authority
PS	Pradeshiya Sabha
RDA	Road Development Authority
RHS	Right Hand Side
ROW	Right of Way
SLT	Sri Lanka Telecome
TOR	Terms of Reference
UC	Urban Council

Chapter 1: Introduction

1.1. Background

Sri Lanka is a country located in the South East region of Asia. The road infrastructure of a country plays a significant role in its economic development which is common for Sri Lanka as well.

At present the country has about 12,000 kilometres of national Class A and B roads and more than a million km's of Class C, D and E roads in rural level connecting town centres and villages to the national level Class A and B roads. However, many of these roads have passed their economic life and are in dilapidated condition which requires rehabilitation and improvement to cater to the continuously growing traffic needs of the country.

Roads are considered the main mode of transportation in the country, in which the current policy plan under the present government of Sri Lanka aims to develop the road system constructing new expressways and rehabilitating existing roads mainly to improve the socio economic conditions of the country. The Road Development Authority (RDA) of the Ministry of Highways has a major role in implementing this policy plan.

In these perspectives, in addition to the rehabilitation and maintainance of National Road Network and maintainance of three Expressways already in its purview, RDA was entrusted to develop 100,000 km of rural roads going beyond developing new Expressways lined up in the future.

The Ministry of Highways and the RDA had negotiations with the World Bank for obtaining funding for the Inclusive Rural Connectivity Development Project (IRCDP) for the rehabilitation of part of the Class C, D and E rural level roads in the country.

In the appraisal stage, 22 rural level roads which are currently under the governance of local authorities i.e. Provincial Councils (Provincial Road Development Authority), Urban Councils, and Pradeshiya Sabha (subordinate divisons of Provincial council) in the Ratnapura district of the Sabaragamuwa Province were selected as the front runner roads, out of more than 3000kms to be developed under IRCDP in the Sabaragamuwa Province. Bidding wil be done in clusters of several roads per each contract and proper ESMP/CESGP associated with the road links being bid will be included in the bid documents.

Figure 1.1 shows the locations of the roads selected from the Ratnapura District.

Rural level roads selected as the front runner roads are as follows.

Table 1.1: Roads selected as front runners

Road Code	Road Name	Local Authority
SR1	Passaramulla Denagama Nelliwala Road	Sabaragamuwa PRDA
SR2	Welekumbura Seethgala Udakandawatta Kowlketiya Road	Sabaragamuwa PRDA
SR3	Pambahinna Kinchigune Road	Balangoda PS
SR4	Wikiliya Pansala Road	Balangoda PS
SR5	Kumaragama Randola Road	Balangoda PS
SR6	Berenduwa - Banagoda - Kempanawatta - Batewela Road	Pelmadulla PS and Ratnapura PS
SR7	Dambuluwana - Galathura Road	Sabaragamuwa PRDA
SR8	Devipahala Deraniyagala Road	Sabaragamuwa PRDA
SR10	Guruluwana Ekneligoda Road	PRDA
SR11	Ilukwatta Rathgaga Road	Ratnapura PS
SR12	Dehenakanda Road	Sabaragamuwa PRDA
SR15	Paper mill road from Kubugoda Ara junction to Thalawa Road	Embilipitiya PS
SR17(a)	Hingura Ara Old Road	Sabaragamuwa PRDA
SR17(b)	Road to Hingura Ara Village	Sabaragamuwa PRDA
SR18	Road From Higura Ara to Ketagal Ara	Sabaragamuwa PRDA
SR19	Kalagedi Ara Nuge Cross Road	Embilipitiya UC
SR21	100 mile post Bosirigama Thalagahawela Via Galwanguwa Road	Embilipitiya PS
SR22	13 Bund Road from 99 Junction	Embilipitiya PS
SR23	Udawalawa to Kolambage Ara via Adaluwa Road	Embilipitiya PS
SR24	Kolambage Ara to Babilegama yaya Road	Embilipitiya PS
SR25	2 nd Mile Post to Guru Ara Galawanguwa Road	Embilipitiya PS & Sabaragamuwa PRDA
SR26	Balagara Junction to Kachchigala Ara lake Road	Embilipitiya PS

PRDA – Provincial Road Development Authority, UC – Urban Council, PS – Pradeshiya Sabha

In compliance with the Environmental and Social Management Framework (ESMF) of IRCDP, above listed roads were screened for environmental and social impacts and based on the level of potential environmental and social impacts and risks, and the roads were categorized in to “Low Risk” and “Moderate Risk” categories. The implementation of these two categories of road projects will be guided by a Code of Environmental and Social Good Practices (CESGP) and Environmental and Social Management Plans (ESMP) developed for each road project to ensure that any adverse environmental and social impacts and risks are avoided, minimized or mitigated. Road projects with ‘low risk’ will be guided by CESGPs while their counterpart ‘moderate risk’ projects will follow the ESMPs.

This Volume III of the ESMF includes the respective E&S instrument i.e. CESGP or ESMP prepared for each of the front runner roads identified. The Volume also incorporates the environmental and social screening checklists prepared for individual road projects and the summary outcomes of stakeholder consultations conducted during the screening process.

1.2. Non-Compliance with E&S instruments

As mentioned, CESGP and ESMP present good practices to be implemented to ensure that any adverse environmental and social impacts and risks are avoided, minimized, or mitigated.

Therefore, these documents form part of the Contract, and the prescriptions detailed in the CESGP/ESMP are mandatory in nature and also contractually binding with the parties stated in the instrument.

The Contractor is advised to carefully consider the relevant requirements stated under item “Pre-construction and design phase” and “Construction phase” of CESGP/ESMP when preparing the proposal. In case the Contractor fails to implement the CESGP/ESMP recommendations after informing in writing, the Engineer shall take whatever actions it is deemed necessary to ensure that the CESGP/ESMP is properly implemented. If the Contractor still fails to comply with the particular requirements, the Engineer shall impose a penalty and take actions to arrange appropriate remedial measures to rectify the impact as given below.

- The Engineer shall be responsible for conducting compliance monitoring of the CESGP/ESMP implementation during the project period and conducting site visits and liaising with the Contractor to ensure compliance on site.
- On observations of serious and minor noncompliance (chemical spills, gross misconduct or lapses on multiple areas as per this code of conduct etc.), as determined by the project Engineer and confirmed by the RDA’s Environmental and Social Unit, noncompliance issues immediate rectification should be made within the given time period by the Engineer, these include impacts such as spills and accidents that cause serious risks to the community, injuries and/or death to any persons, structural damage to any properties or vehicles due to accidents and Contractor negligence.
- If the contractor fails to comply with the requirements after giving a reasonable time to attend/rectify, the Engineer shall recommend the RDA to suspend the whole or any part of the particular construction activity until proper mitigation measures are taken to a level acceptable to the Engineer. If the contractor continues to fail to take satisfactory action

within next 14 days from the date of suspension, the Engineer/RDA shall immediately take action to get the service completed through a third party and the entire cost incurred shall be recovered from any amount payable to the Contractor .

- The contractor must take every effort to avoid cases of sexual exploitation abuse or harassment (SEAH) and gender-based violence (GBV) associated with contract workers. If those incidents are recorded frequently the Engineer shall take suitable measures to remove the suspects from the construction site after a comprehensive inquiry.
- All final payments shall be subject to a final evaluation and closure report of the CESGP/ESMP implementation which shall be prepared by the Engineer prior to the Contractors complete demobilization from the Site.
- Any requirement under the contract should be fulfilled by the Contractor. If not, that may be corrected through other means at the Contractor's cost or take measures to terminate the Contract shall be taken by the Employer.

1.3. Monitoring and Reporting Requirements

The Contractor shall recruit an Environmental and Social Safeguards Officer (ESSO) who acts as the representative of the Contractor for environmental and social (E & S) management. The Terms of Reference (TOR) of the ESSO is presented in Annex I of this document. ESSO shall maintain a report of ESMP/CESGP compliance via photo documentation of implementation, issues and impacts identified during construction and report on how the Contractor has complied with the E & S management measures in place for this project as per this document.

The written report to the Engineer shall be submitted monthly via the use of photographs and written documentation as part of project progress reports or as agreed with the Engineer.

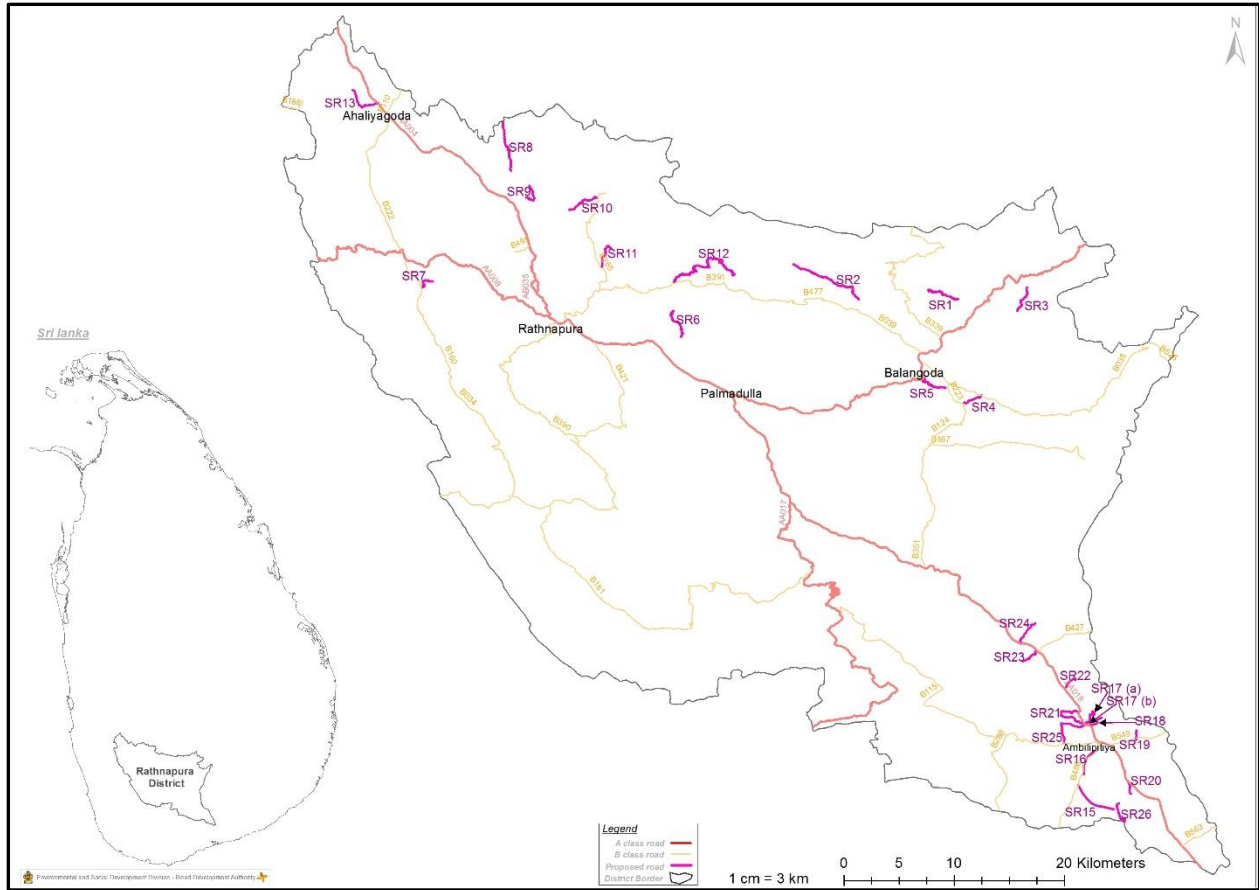


Figure 1.1: Geographical spread of the front runner roads in the Rathnapura District

Chapter 2: CESGPs and ESMPs prepared for front runner roads of IRCDP

Table 2.1 shows the risk classification for each road project and the E&S instruments i.e. CESGP or ESMP that would guide the project implementation.

Table 2.1: Risk classification and safeguards instruments for front runner roads

Road Code	Road Name	Length (km)	Risk classification	E&S Instrument
SR1	Passaramulla Denagama Nelliwala Road	4.0	Moderate	ESMP
SR2	Welekumbura Seethgala Udakanda Deiyangewatta Kowketiya Road	8.1	Moderate	ESMP
SR3	Pambahinna Kinchigune Road	2.8	Moderate	ESMP
SR4	Wikiliya Pansala Road	2.1	Moderate	ESMP
SR5	Kumaragama Randola Road	3.4	Moderate	ESMP
SR6	Berenduwa - Banagoda - Kempanawatta - Batewela Road	4.0	Moderate	ESMP
SR7	Dambuluwana - Galathura Road	2.0	Moderate	ESMP
SR8	Devipahala Deraniyagala Road	5.6	Moderate	ESMP
SR10	Guruluwana Ekneligoda Road	3.6	Moderate	ESMP
SR11	Ilukwatta Rathgaga Road	2.82	Moderate	ESMP
SR12	Dehenakanda Road	12.1	Moderate	ESMP
SR15	Paper mill road from Kubugoda Ara junction to Thalawa Road	4.15	Moderate	ESMP
SR17(a)	Hingura Ara Old Road	1.1	Low	CESGP
SR17(b)	Road to Hingura Ara Village	1.7	Low	
SR18	Road From Higura Ara to Ketagal Ara	1.45	Low	CESGP
SR19	Kalagedi Ara Nuge Cross Road	1.0	Low	CESGP
SR21	100 mile post Bosirigama Thalagahawela Via Galwanguwa Road	4.4	Low	CESGP
SR22	13 Bunt Road from 99 Junction	1.4	Low	CESGP
SR23	Udawalawa to Kolmabage Ara via Adaluwa Road	1.8	Low	CESGP
SR24	Kolambage Ara to Babilegama yaya Road	2.6	Low	CESGP
SR25	2 nd Mile Post to Guru Ara Galawanguwa road	4.4	Moderate	ESMP
SR26	Balagara Junction to Kachchigala Ara lake Road	2.1	Low	CESGP

2.1. ESMP of SR 01 - Passaramulla Denagama Nelliwala Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 01 - Passaramulla Denagama Nelliwala Road
(4km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background Passaramulla Denagama Nelliwala Road

Road length: 4.0Km

Coordinates: Starting Point 6°42'0.64"N, 80°43'50.77"E
End Point 6°37'37.31"N, 80°43'13.11"E

Location:

District: Ratnapura

DS Division: Imbulpe

EE Division: Pellmadulla

GN Divisions: Amuwathugoda , Alakolaella

1. Introduction:

Imbulpe Passaramulla Nelliwala Road starts from Colombo – Rathnapura – Wellawaya – Batticaloa (A004) Road. However, the 4km section of the road selected for the development starts after 2km. The road provides access to Olugantota – Pinnawala – Bogawanthalawa (B339) road. This road is under the custody of Provincial Road Development Authority (PRDA), Sabaragamuwa. The surface of the road is damaged macadam. Road traverses along a hilly terrain and elevation of the trace vary between 481 - 598m MSL. Road runs parallel to Denagam oya (an inflow to Samanalawewa Reservoir) from 0 km to 2.5km point on RHS.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 4km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3.2m, shoulder 0.5m (both sides), and drains as required. The construction period of the road is estimated as five (5) months.

3. Right of Way

There is no demarcation established at site laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist on either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along either side of the RoW line. But drains may or may not be erected along the RoW. As in some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Passaramulla Denagama Nelliwala road is around 5.5m and the average carriageway is 4.0m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA (Sabaragamuwa) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a

representative from Provincial Road Development Authority (Sabaragamuwa) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The public consultations revealed that it is important to develop this road as the surface is damaged and the road provides a link to two national roads, Colombo – Ratnapura – Wellawaya – Batticaloa (A004) Road and Olugantota – Pinnawala – Bogawanthalawa (B339) road. There are paddy and vegetable cultivations in the project area. The road is used for transportation of these agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and to take photographs of the road (see Annex 1 for photographs of the road). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, This subproject i.e. Passaramulla - Denagama - Nelliwala Road will have reversible, small-medium scale environmental and social impacts. The key environmental impacts identified in the screening checklist are sedimentation of streams including Denagama stream, temporary obstructions to waterflow of streams at culvert reconstruction sites, potential water pollution and temporary slope failures. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise, and vibration. These impacts are specifically limited to the construction phase of the project that can be mitigated by site specific mitigation measures; this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** The settlements can be observed along the road. There are about 128 households and 30 small shops located on both sides of the road. The population along the road is around 600. A majority of the people are Sinhalese. An Indian Tamil population also live in some section of the road. Buddhism and Hinduism are the religions of above population.
- **Land ownership:** There are no squatters along the road. All the lands are private or government.

Livelihoods: Paddy and vegetables are the major agricultural crops in the area and it is a main source of income for residents. Some people are engaged in wage labour, public and private sector employment and self-employment.

Local organisations: There are Farmer Organisations functioning in the area

- **Community infrastructure and resources:** There is one temple; one Bo Tree and a health centre located along the road (see Table 1). During road construction, access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided until the construction work is completed. Permanent access will be restored after completion of construction activities.

Table 1: Community infrastructure and resources

Community infrastructure and resources	Location coordinates		Chain-age	Road side	Distance from the RoW
Health Centre	6°42'7.22"N	80°43'26.50"E	1+000	RHS	5.0 m
Bo tree	6°42'6.75"N	80°43'28.92"E	1+000	LHS	4.0 m
Bodhirukkaramaya Temple	6°42'20.00"N	80°42'39.02"E	3+800	LHS	20 m

On-going development projects: None.

Visitors to the area: People from other villages come to the health centre to obtain health care services.

7.2 Potential Impacts:

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.

Screening Questions	Not known	Yes	No	Remarks
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing Right of Way.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Provincial Road Development Authority (PRDA), -Sabaragamuwa
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing Right of Way.
Is the ownership status and current usage of land known?		✓		The RoW is owned by PRDA (Sabaragamuwa). The land is used as the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works?			✓	
Is the land free of squatter/informal settlements or other encumbrances?				
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?			✓	None of the people will be affected as the development works will be carried out within the existing RoW.

Screening Questions	Not known	Yes	No	Remarks
Any of these people poor, indigenous, or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services, or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters, or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters, or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is one Temple, one Bo Tree and a Health centre located (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Pinnawala Police Station which is 3km from the project area. Further, “MithuruPiyasa” ¹ center is located in Balangoda hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 15 laborers will be

¹ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
				recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities need to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious, or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 15. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: Passaramulla Denagama Nelliwala Road (SR01)
Road Length: 4.0km
Location: District: Rathnapura
 DS Division: Imbulpe

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		Road crosses minor streams at 0.33km, 1.6km, 1.82km, 2.7km, 3.0km, 3.38km and 3.8km. However these streams will not be permanently altered for road rehabilitation. However, streams at above locations will be temporarily altered for rehabilitation/minor repairing of culverts and construction of new culverts at 1.0 and 1.5km. Continuous water supply shall be provided to downstream and waterways shall be restored to its original condition. Soil erosion control measures such as application of silt barriers will minimize siltation of water bodies.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Road runs parallel to Denagamoya (an inflow to Samanalawewa Reservoir) from 0.0 to 2.5km and crosses canals at 0.33km, 1.6km,

			1.82km, 2.7km, 3.0km, 3.38km and 3.8km. This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies, installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting works will not be necessary. Noise and vibration levels generated due to civil works will be managed within the permissible levels as specified in the national standards. Especially the sensitive receptors as given in the Question 8 of the Social Screening Checklist and settlement areas located at starting section and around 1km (Yahalekumbura) section of the road.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Regular sprinkling of water to suppress dust and avoiding construction activities during night time with especial attention to settlements located close to the road edge

			around the starting point and 1km.
- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will reduce these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding possibilities of water stagnation areas within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for labor will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 Photographs of Passaramulla Nelliwala Road



Figure 1: Starting point of the road at Passaramulla Nelliwala road.



Figure 2: Along the road



Figure 3: Healthy Lifestyle Centre located at 1.00 km on RHS of the road

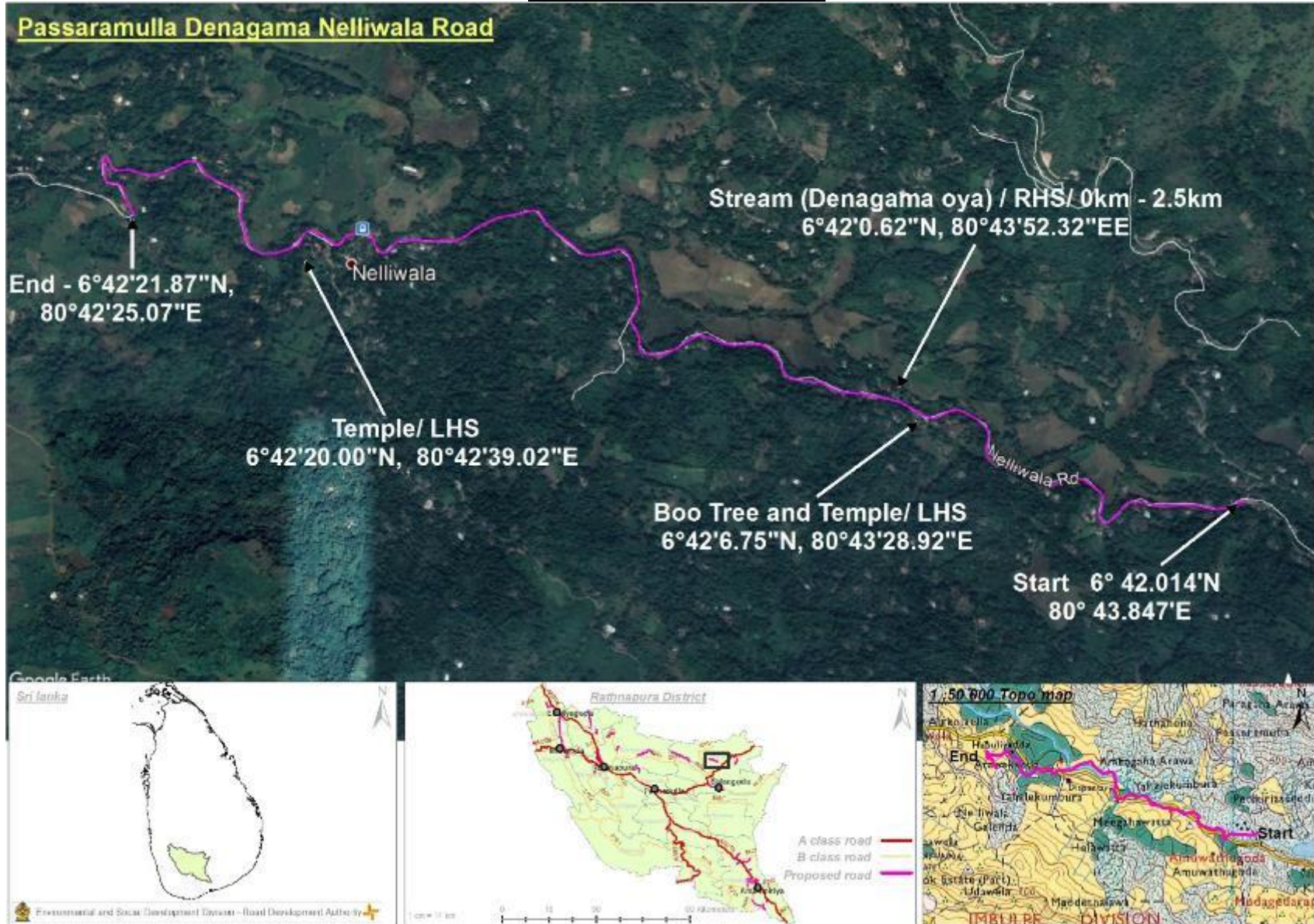


Figure 4: Settlements located on both sides of the road



Figure 5: End point of the road

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Passaramulla Denagama Nelliwala Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Side drains and cross drains directed to Denagam oya stream runs parallel to road from 0.0 - 2.5km, are recommended to have proper silt control measures to avoid siltation of the stream.	<ul style="list-style-type: none"> • Section 10, 22 of ESMP • Annex III
Drainage system with adequate capacity to collect storm water and proper slope protection measures are recommended to implement at the settlement area at the starting section (Yahalekumbura) of the road, where houses are located in downward side (lower to the road level) of the road.	<ul style="list-style-type: none"> • Section 10, 22, 42 of ESMP
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	<ul style="list-style-type: none"> • Section 11, 44 of ESMP • Any guidance to be issued by NBRO
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 01 Passaramulla Denagama Nelliwala Road

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat. Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence only upon the written approval of the Engineer and then from the relevant local authority. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities 	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant Engineer/Local Authority

		<p>particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible</p> <ul style="list-style-type: none"> ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil, fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, Department of Irrigation, CBO) will not be allowed. ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use of lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT

10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Engineer and Irrigation and Provincial Irrigation Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO) ❖ Existing slopes should not be disturbed to extent possible ❖ Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO
12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All efforts must be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Sabaragamuwa PRDA
13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Sabaragamuwa PRDA
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

CONSTRUCTION PHASE					
15.	Clearing of road shoulders and removal and disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies (Denagam oya stream, etc..). ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, ○ Minimize the construction debris/excavated material as much as possible by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm.</p> <ul style="list-style-type: none"> ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 			
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations as mentioned in No. 15. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.16. ❖ Any parties vulnerable for excessive dust residing along the road especially at the health center and Bo tree at 1km, temple at 3.8km and residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods.</p> <ul style="list-style-type: none"> ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 			
20.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (currently approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA, GSMB
21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA,GSMB

		<ul style="list-style-type: none"> ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 			
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways. where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. <p>Refer Annex III for sample soil erosion measures.</p>			
23.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ Any parties vulnerable for excessive noise residing along the road especially at the health center and Bo tree at 1km, temple at 3.8km and residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
24.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 			
25.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Any parties vulnerable for excessive vibration residing along the road especially at the health center and Bo tree at 1km, temple at 3.8km and residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB
26.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away at least 200m away from water ways and water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA

		<p>other contaminants to meet the relevant standards before discharging to the environment.</p> <ul style="list-style-type: none"> ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 			
27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. 			
29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
30.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways and near to any other environment and 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA

		<p>social sensitive locations</p> <ul style="list-style-type: none"> ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 			
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details.. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
32.	Prevention of Vector borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

33.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment that can happen at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

35.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with the relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
36.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction to every house and other public properties for which the access is already given from the road. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass into such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 			
39.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. • No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. • Washing the vehicles should be conducted periodically to prevent carrying any invasive species • The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> • All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. • The Contractor will take reasonable precautions to prevent his workmen 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.</p> <ul style="list-style-type: none"> The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 			
42.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters (Environmental and Social Safeguards Officer). All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review complaints regarding environmental and social safeguards noncompliances and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
44.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. ❖ It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer NBRO

45.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated into the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
46.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA./Consultant Engineer, PRDA
47.	Environmental Enhancement/Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
48.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA./Consultant EngineerPRDA
49.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
50.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for National level stakeholder consultations conducted for IRCDP.

Stakeholder consultation conducted with communities living beside the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	GramaNildari - Medagedaragoda	Male	<ul style="list-style-type: none"> • It is important to develop this road. • People along the road engage in farming and work as laborers. • There is a health center and people come to this place from surrounding villages.
11.03.2021	GramaNildari - Amuwathugoda	Male	<ul style="list-style-type: none"> • There is no proper drain system along the road and therefore, the storm water flows on the road. Thus, road is damaged. • People engage in paddy, tea and vegetable cultivation. • It is good to develop this road.
11.03.2021	Road User	Male	<ul style="list-style-type: none"> • The bus traverses only up to Nelliwala. From that location, it's difficult even to go by foot as the road is severely damaged. • Although this road is a PRDA road, the road is not maintained for a long period.
11.03.2021	Owner of a business unit	Female	<ul style="list-style-type: none"> • There's a lack of public transport as the road is damaged. • Although, the road does not get inundated, the storm water flows along the road and road get damaged.
11.03.2021	Resident	Male	<ul style="list-style-type: none"> • It is good to develop this road as it is difficult to use this road during rainy season as there is no drainage system along the road. • The road is slippery and dangerous during rainy season.

2.2. ESMP of SR 02 - Welekumbura Seethgala Udakandawatta Kowulketiya Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 02 - Welekumbura Seethgala Udakandawatta
Kowulketiya Road (8.1km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background

Welekumbura - Seethagala - Udakanda - Kowulketiya Road

Road length: 8.10km

Coordinates: Starting Point: 6° 42.000'N, 80° 38.955'E
End Point: 6° 43.711'N, 80° 35.725'E

Location:

District: Ratnapura
DS Division: Balangoda
EE Division: Pelmadulla
GN Divisions: Welekumbura, EgodaWaleboda

1. Introduction

The Welekumbura - Seethagala - Udakanda - Kowulketiya Road (8.10km) starts from already developed Welekumbura to Seethagala road and connects with Balangoda – Rassagala – Uwella Road (B039). This road is currently under the custody of Provincial Road Development Authority (PRDA) Sabaragamuwa. Road traverses along a hilly terrain and elevation of the trace vary between 557 - 749m MSL. Road surface is mainly damaged macadam, and there are few scattered locations with concrete. Road runs parallel to a stream of Walawe Ganga from its start to the end point on right hand side (RHS), for about 100m-500m distance downward of the road. The proposed road section is not located within or adjacent to a protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 8.10km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3.2m, shoulder 0.5m (both sides) and drains as required. The construction period of this road is estimated as eight (8) months.

3. Right of Way

There is no demarcation established at site laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls normally are erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases also there's a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Welekumbura - Seethagala - Udakanda –Deiyangewatta – Kowulketiya Road is around 5.5m and the average carriageway is 3.3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA (Sabaragamuwa) will provide coordination support by attending to any public requests/views and for

drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA, Sabaragamuwa will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The road condition is concrete and damaged macadam. Therefore, residents of the area welcome this development project. There are tea cultivations in the area, and road development will facilitate the transportation of tea. Further, the road development will also provide easy access to schools, temples and medical centre located along the road.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and collect all available information and take photographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared Draft Environment and Social screening checklists and submitted to World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, This subproject i.e. Welekumbura - Seethagala - Udakanda - Kowulketiya Road will have a majority of reversible, small-medium scale environmental and social impacts. The key environment impacts include temporary siltation of streams, slope failures and flood impacts. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements: There are about 255 households located on either side of the road with an estimated population of 960. A majority of the population are Sinhalese. There are Indian Tamil families as well. In terms of religion, the majority are Buddhists while others are Hindus.

Land ownership: There are no squatters along the road. There are private lands, government lands and the lands vested with temples under Buddhist Temporalities Ordinance (“Vihara Dewalagam Ordinance”).

Livelihoods: Tea plantation is the main source of income for the people living in this area. There are also wage labourers.

- **Local organisations:** The community organisations include a Rural Development Society, Farmers’ Organization, Elders’ Society and Samurdhi Societies.
- **Community infrastructure and resources:** There are temples, a preschool, a medical centre, a Buddha statue, a community water tank located along the road as shown in Table 1. During road construction, access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

community infrastructure and resources	Location coordinates		Chainage	Road side	Distance from the RoW
Buddha statue	6°42'0.17"N	80°38'57.26"E	0+000	Start	1m
Water tank of the Community Water Supply Scheme	6°42'10.52"N	80°38'46.17"E	0+500	RHS	2m
Temple	6°42'37.86"N	80°38'35.97"E	1+500	RHS	7m
Preschool	6°43'1.67"N	80°37'25.71"E	4+350	LHS	10m
Medical Centre	6°43'1.67"N	80°37'25.71"E	4+350	LHS	5m
School	6°43'19.17"N	80°36'38.06"E	6+100	LHS	5m
Temple	6°43'28.34"N	80°36'18.69"E	6+850	LHS	2m

- **On-going development projects:** None
- **Visitors to the area:** People from outside come to the village for trading activities.

7.2. Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations

Screening Questions	Not known	Yes	No	Remarks
				where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of PRDA (Sabaragamuwa)
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		The RoW is owned by PRDA (Sabaragamuwa). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to			✓	

Screening Questions	Not known	Yes	No	Remarks
poverty risks? If yes, how?				
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There are temples, preschool, medical centre, Buddha statue, community water tank located along the road (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		The project area comes under the Pinnawala Police Station which is 21km away from the project site. Further, "Mithuru Piyasa" ² center is located in Balangoda Olukanda District hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers

² Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
				will be used by the contractors. Approximately 20 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is a possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 20. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: Welekumbura Seethagala Udakanda Kowulketiya Road (SR02)
Road Length: 8.1km
Location: District: Rathnapura
 DS Division: Balangoda, Imbulpe

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permanent alteration of waterways will be required. However temporary diversion of streams at 2.0km where new culvert to be constructed and at reconstruction of culverts; 1.8, 2.72, 3.65, 4.4, 5.45, 5.5 and 7.8km will be required. Provision of continuous supply of water to downstream, restoration of streams to original conditions after culvert reconstruction will minimize these impacts.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		At culvert construction/reconstruction at 2.0km and 1.8, 2.72, 3.65, 4.4, 5.45, 5.5 respectively. Further road runs parallel to the Walawe Ganga River from start to the end point on RHS. However, the river runs about 100m-500m distance downward of the road.

			This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies, installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting works will not be necessary. Noise and vibration levels generated due to civil works will be managed within the particular national standards. Specially the sensitive receptors as given in the Question 8 of the Social Screening Checklist and settlement areas located at Egoda Waleboda (6.1-7.2)km
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Regular sprinkling of water to suppress dust and avoiding construction activities during night time especially from 6.1 – 7.2km where settlements are located adjacent to the road.
- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will

			reduce these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding possibilities of water stagnation areas within the constriction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for labor will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Welekumbura Seethagala Road



Figure 1: starting point of the road



Figure 2: Along the road



Figure 3: Road crosses small stream at 5.1km



Figure 4: Along the road (5.5km)



Figure 5: Road passes settlement area of EgodaWaleboda at 6km



Figure 6: Tea cultivations near the road.

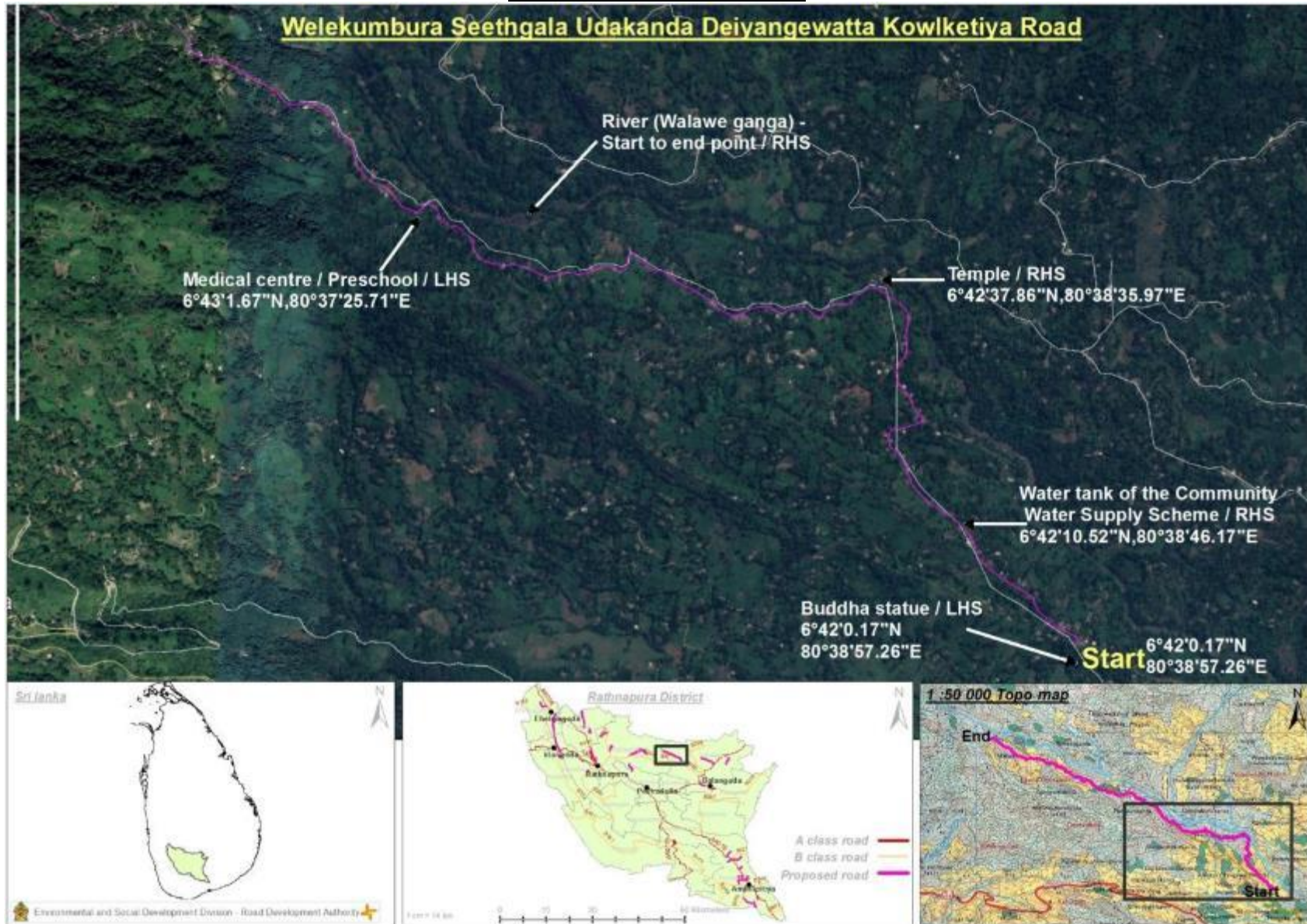


Figure 7: School near the road

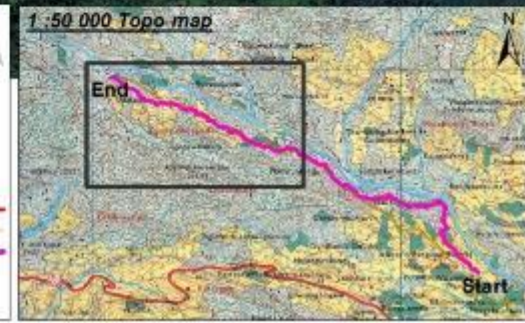


Figure 8: End point of the road at 8.0km

Appendix 2 – Location Map



Welekumbura Seethgala Udakanda Deiyangewatta Kowketiya Road



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Welekumbura Seethgala Udakandawatta Kowulketiya Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Side drains and cross drains directed to Walawe Ganga (stream) stream runs parallel to road from start to end, are recommended to have proper silt control measures to avoid siltation of the stream.	<ul style="list-style-type: none"> • Section 10, 15, 43 of ESMP • Annex III
Drainage system should be designed in order to prevent flowing of road runoff to the houses located in downward side (lower to the road level) of the road.	<ul style="list-style-type: none"> • Section 10, 15, 43 of ESMP
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	<ul style="list-style-type: none"> • Section 11, 45 of ESMP • Any guidance to be issued by NBRO
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 02 Welekumbura Seethagala Udakandawatta Kowulketiya Road

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Balangoda). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation.</p> <ul style="list-style-type: none"> ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence only upon the written approval of the Engineer and then from the relevant local authority ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Inspector (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) 	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Local Authority

		<p>with the approval of the Engineer. Adequate health care is to be provided for the work force.</p> <ul style="list-style-type: none"> ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, Department of Irrigation, CBO) will not be allowed. ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use of lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB, NW&DB, SLT

		<p>effected utilities and the exact locations</p> <ul style="list-style-type: none"> ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption <ul style="list-style-type: none"> ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 			
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO). ❖ Existing slopes should not be disturbed to extent possible ❖ Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO

12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead away in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for preparing the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Sabaragamuwa PRDA
13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Sabaragamuwa PRDA
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> • Contractor shall identify locations where permanent access is blocked for construction. • The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. • In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. • If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following</p> <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas (Samanala Adawiya Sobhawa Rakshithya) and water bodies (Walawe ganga stream, etc..). ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. <p>❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites.</p> <p>❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies.</p>			
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily.			
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations as mentioned in Social Screening Checklist. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Any parties vulnerable for excessive dust such as temples at 1.5km and 6.8km, preschool and medical center at 4.3km, school at 6.1km and houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Metal quarries, crushers and all the plants should be located at least 500m from the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 			
20.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (currently approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA, GSMB
21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA,GSMB

		<p>locations.</p> <ul style="list-style-type: none"> ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 			
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways, where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>engineer.</p> <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. <p>Refer Annex III for sample erosion control measures.</p>			
23.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ Any parties vulnerable for excessive noise residing along the road such as temples at 1.5km and 6.8km, preschool and medical center at 4.3km, school at 6.1km and houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
24.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 			
25.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Any parties vulnerable for excessive vibration located along the road such as Buddha statue at starting point, water tank at 0.5 km, temples at 1.5km and 6.8km, preschool, medical center at 4.3km, school at 6.1km and houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB
26.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, waterways and water bodies. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA

		<ul style="list-style-type: none"> ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 			
27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>sterilized dressing materials and appliances should be available at the site office at all times</p> <ul style="list-style-type: none"> ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 			
30.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer MoH

		<p>interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff.</p> <ul style="list-style-type: none"> ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 			
32.	Prevention of Vector Borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
33.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

35.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers’ grievances and complaint/ suggestion boxes can be placed at the supervision consultant’s office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
36.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with the relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police

		drivers to ensure the safety of the vehicles and pedestrians			
37.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction of all houses and public properties which have already obtained access from the road. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass into such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
39.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose The contractor shall build hardy structures around the trees for protection. The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 			
40.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. <ul style="list-style-type: none"> Vehicles should be covered during transportation of cleared vegetation to and from the construction site. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. Washing the vehicles should be conducted periodically to prevent carrying any invasive species The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.</p> <ul style="list-style-type: none"> The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 			
43.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
44.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person (ESSO) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review environmental and social complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 		Contractor	Engineer, PIU/PMU, RDA
45.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. ❖ It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer NBRO
POST CONSTRUCTION					

46.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the Engineer for information. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA./Consultant Engineer PRDA
47.	Environmental Enhancement/Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
48.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA./Consultant Engineer PRDA
49.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
50.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultations conducted for IRDCP.

Stakeholder consultation conducted with communities living beside the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	Owner of a commercial unit	Male	<ul style="list-style-type: none">• Main livelihood of the area is tea cultivation.• About 40 -50 lorries transport tea leaves on this road daily.• This road is in damaged condition and therefore, it should be improved.
12.03.2021	Grama Niladhari Welekumbura	Male	<ul style="list-style-type: none">• Majority of people living in this area are Sinhala - Buddhists.• Most of the lands are private lands. But there are some lands under Buddhist Temporalities Ordinance.

2.3. ESMP of SR 03 - Pabahinna Kinchigune road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 03 - Pabahinna Kinchigune road (2.8km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background

Pabahinna Kinchigune road

Road length: 2.80km

Coordinates: Starting Point: 6° 42.566'N, 80° 47.244'E
End Point: 6° 41.424'N, 80° 46.773'E

Location:

District: Ratnapura

DS Division: Imbulpe

EE Division: Pelmadulla

GN Divisions: Muttettuwagama, Kinchigune, Karagasthalawa

1. Introduction

PabahinnaKinchigune road starts from Pambahinna – Kumbalagama a and Rajawaka- Kapugala (B593) road and ends near the Samanalawewa reservoir. This road is under the custody of Balangoda Pradesiya Sabha (local authority). The surface of the road is damaged macadam. The road traverses along a hilly terrain and elevation of the trace varies between 464 - 596m MSL. The road runs adjacent to Rajawaka proposed forest reserve at 1.8km (RHS) and 2.3km to the end point on both sides of the road. The road ends closer to Samanalawewa reservoir.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.8 km). The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 4.5m, shoulder 0.5m (both sides), and earth drain 0.8m. The estimated time frame for construction of this road is four (4) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls normally are erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Pambahinna Kinchigune road is around 10m and the average carriageway is 5m.

4. Project Implementing Agency:

The Road Development Authority is responsible for design and construction activities. The Pradeshiya Sabah (local authority) of Balangoda will provide coordination support by attending to any public

requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from the Balangoda Pradeshiya Sabah will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

This road is used by local tourists to visit Samanalawewa reservoir and there is also a camping site. The road also provides access to Faculty of Agriculture, University of Sabaragamuwa and the Training center of Ceylon Electricity Board. Thus, this road development will provide easy access to students, local tourists and residents in the area.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists, and submitted to World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Pambahinna – Kinchigune Road will have a majority of reversible, small-medium scale environmental and social impacts. The key environmental impacts include indirect impacts to Rajawaka Proposed Forest Reserve and temporary impacts to water quality of the Samanalawewa Reservoir. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:**
There are about 58 households and 13 small shops located along the road. The population is around 270. The majority of the people are Sinhalese Buddhists by their ethnicity and religion respectively.

- **Land ownership:** There are no squatters along the road. The land is private and government owned. There are titleholders and permit holders
- **Livelihoods:** Paddy is the main crop cultivated in the area. Residents are engaged in public and private sector jobs and self-employment as well.
- **Local organisations:** There are Farmer Organisations and Funeral Aid Societies in the area
- **Community infrastructure and resources:** There is a Buddha shrine, Bo tree, temple and an educational institute as described in the Table 1.. During construction period, the access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Coordinates		Chainage	Road side	Distance from RoW
Buddha Shrine	6°42'34.50"N	80°47'14.31"E	Starting point	RHS	0.5m
Temple	6°42'5.53"N	80°47'9.56"E	1.00	LHS	10m
Bo tree	6°41'55.98"N	80°46'54.49"E	1.600	LHS	20m
Faculty of Agriculture - University of Sabaragamuwa	6°42'5.53"N	80°47'9.60"E	1.060 to 1.600	LHS	2m
	6°41'55.90"N	80°46'54.53"E			

- **On-going development projects:** None.

- **Visitors to the area:** There are local tourists who visit the Samanalawewa reservoir. There is also a camping site and a training centre belonging to Ceylon Electricity Board in the project area. Therefore, visitors are coming to project area frequently.

7.2. Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be

Screening Questions	Not known	Yes	No	Remarks
				newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of the Balangoda Pradeshiya Sabha (local authority).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		The RoW is owned by Balangoda Pradeshiya Sabha (local authority). The usage of land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works?			✓	

Screening Questions	Not known	Yes	No	Remarks
(Is the land free of squatter/informal settlements or other encumbrances?)				
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a Buddha shrine, Bo tree, temple and an education institute (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Samanalawewa Police Station which is 0.28 km away from the

Screening Questions	Not known	Yes	No	Remarks
				project site. Further, "Mithuru Piyasa" ³ center is located in Balangoda hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is a possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.

³ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: Pabahinna - Kinchigune road (No. 3)
Road Length: 2.8km
Location: District: Rathnapura
 DS Division: Imbulpe

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area	✓		Road runs adjacent to Rajawaka Proposed Forest Reserve at 1.8km (RHS) and 2.3km to the end point on both sides of the road (Source: Maps of Sensitive Areas of Rathnapura District prepared by CEA and Topographic maps of Sri Lanka, 1:50000 scale). Current legal status of the forest is being verified with the Forest Department and Department of Wildlife Conservation, which will determine the eligibility for financing according to the project's Negative List (ESMF). However, road improvement works will be limited to the existing ROW (around 11m) of the road and there is a sufficient ROW along the particular road section.
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	

B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permanent diversion is required. Temporary diversion will be required at culvert reconstruction; 0.25, 0.85, 1.42, 1.49, 1.68, 1.8 and 2.24km. Water flow to the downstream will be continued during construction phase and streams will be restored to original condition after need is over. Siltation of streams will be minimized by application of soil conservation measures such as silt traps and fences.
- Deterioration of surface water quality due to sil runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Road ends closer to Samanalawewa reservoir. This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies as above mentioned and installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.

- Noise and vibration due to blasting and other civil works?	✓		Blasting works will not be necessary. Noise and vibration levels generated due to civil works will be managed within the permissible levels as specified in the national standards. Specially the sensitive receptors as given in the Question 8 of the Social Screening Checklist and 0.0 to 2.3km where settlements are located.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Regular sprinkling of water to suppress dust and avoiding construction activities during night time.
- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will mitigate these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding possibilities of water stagnation areas within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps, retaining walls and provision of PPE for labors will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards

			will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Pabahinna Kinchigune road



Figure 1:

Starting point of the road at Pabahinna - Kubalgama - Rajawaka - Kapugala road (B593)



Figure 2: Along the road



Figure 3: Faculty of Agriculture of University of Sabaragamuwa which is located at 1.00km to 1.600 on LHS of the road



Figure 4: Rajawaka proposed forest reserve located at 1.8 km on RHS of the road



Figure 5: Rajawaka proposed forest reserve on either sides of the road from 2.3km

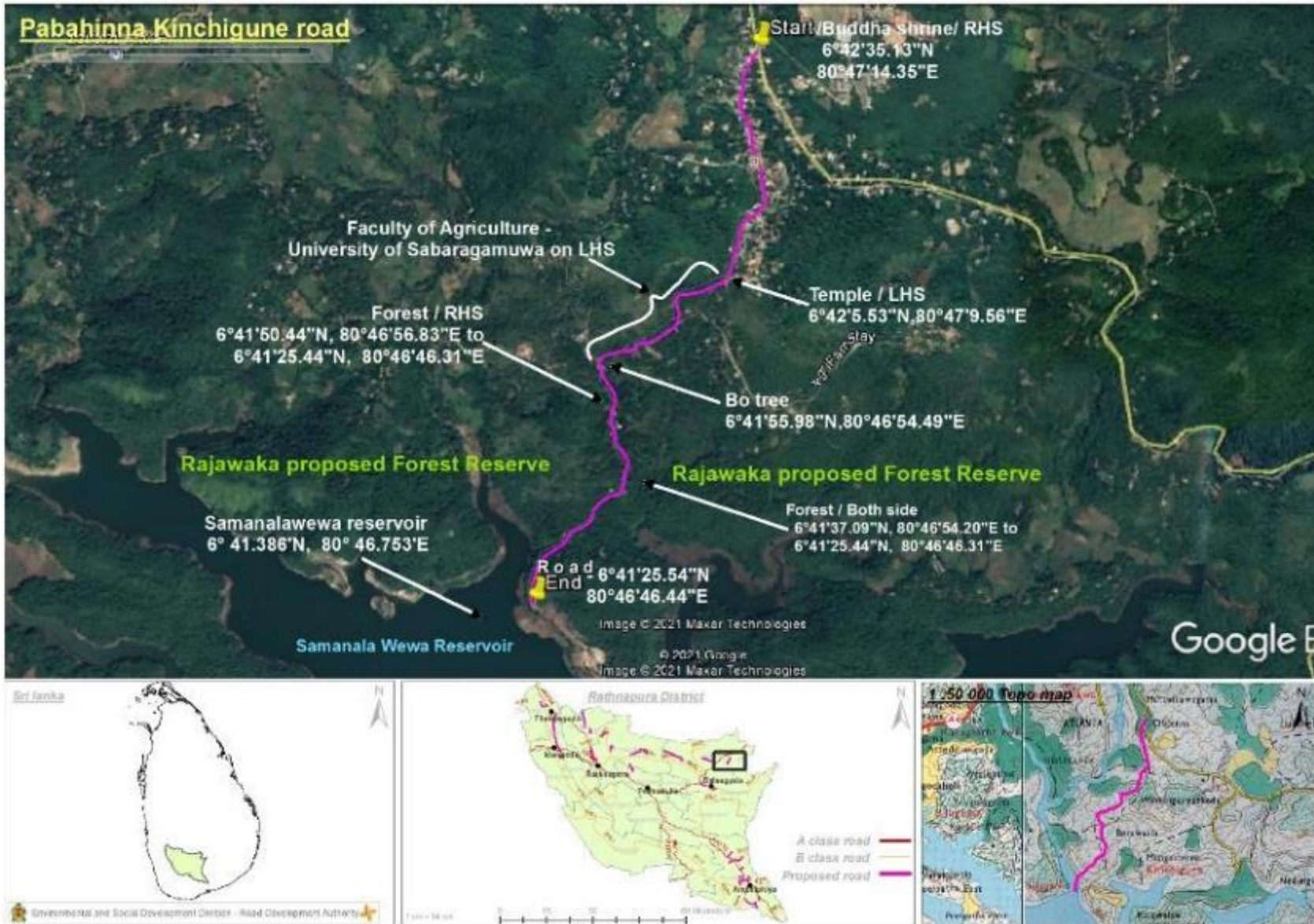


Figure 6: Rajawaka proposed forest reserve on either sides of the road



Figure 4: End point of the road near the Samanalawewa reservoir

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Pabahinna Kinchigune road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
It is recommended to include safety sign boards and speed limits around 1.06 to 1.6km near the location of Faculty of Agriculture - University of Sabaragamuwa	<ul style="list-style-type: none"> Section 49 of ESMP
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of Pabahinna Kinchigune road (SR03)

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ Strictly prohibited the removal or cut of trees within the Rajawaka Proposed Forest reserve located at 1.8km (RHS) and from 2.3km to end (either sides) of the road. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat. Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as temples, public areas (if possible in University land area, land belongs to Electricity Board) will be explored with the help of DoF and DS of the area ○ The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. ○ Removed trees of economic value must be handed over to the Timber 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>Corporation.</p> <ul style="list-style-type: none"> ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, boundaries and buffer zones of protected/forested areas (Rajawaka Proposed Forest Reserve), water bodies (Samanalawewa Reservoir) and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction of the labor camp will commence only upon the written approval of the Engineer and then from the relevant local authority. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Inspector (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the 	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Local Authority

		land owner should be terminated properly and relevant documents should be handed over to the Engineer for information.			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (NW&DB, Department of Irrigation, CEB) is not permitted ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. These sites should be well away from the Rajawaka Proposed Forest Reserve. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water bodies (Reservoirs) and water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes and project's grievance redress mechanism via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ In case of any complaint referring to GN and DS level GRM, the contractor should have the copy of the minutes of such decisions. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Advance notice to the public in all local languages about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB, NW&DB, SLT
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies (Samanalawewa Reservoir) should be prevented and work should be scheduled during the dry season 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI

		<ul style="list-style-type: none"> ❖ Excavation of beds of any water body/tank, streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals in a manner that adversely affect downstream intakes 			
11.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements, to improve safety including realignment of bends, to avoid bottle necks or construction of cross drainages, lead-away in the locations where required. ❖ All effort will be made to minimize the land donation for the project ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Grama Niladari and/or Divisional Secretariat. ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Balangoda PS
12.	Reduction of animal crashes on the road	<ul style="list-style-type: none"> • Animal corridors/migratory paths, located across the road corridor, shall not be blocked/obstructed by the contractor, specially within the Rajawaka Proposed Forest area. Further, new structures to facilitate animal movement across the road should be introduced with the recommendation of the Forest Department and with the approval of Engineer. For example under passes should be provided for terrestrial animals such as reptiles and amphibians and canopy bridges should be provided for arboreal animals (Drainage structures that have been already provided will act as passages for movement of animals across the road during the operational phase. However, additional pathways to be constructed if the gap between two consecutive structures is considerably high.) <p>Following literature can be used in designing animal crossing structures which are used worldwide.</p> <ul style="list-style-type: none"> • Ministry of Environment and Climate Change Strategy, 2020. Guidelines for Amphibian and Reptile Conservation during Road Building and Maintenance Activities in British Columbia. Version 1.0., March 30, 2020. • Green Infrastructure Design for Transport Projects: A Road Map to Protecting Asia's Wildlife Biodiversity-2019-Asian Development Bank https://www.adb.org/publications/green-transport-projects-asia-wildlife • Ecofriendly Measures to Mitigate Impacts of Linear Infrastructure on Wildlife-2016-Wildlife Institute of India, Ministry of Environment, Forest and Climate Change India, National Highway Authority of India, National Tiger Conservation Authority of India and the World Bank Group http://moef.gov.in/wp-content/uploads/2019/07/eco_friendly_measures_mitigate_impacts_linear_infra_wildlife_compressed.pdf 			

13.	Land Acquisition (if required)	<ul style="list-style-type: none"> Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Balangoda PS
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands ❖ During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas (Rajawaka Proposed Forest Reserve) and water bodies (Samanalawewa Reservoir, etc..). ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA, Pradeshiya sabha, ○ Minimize the construction debris/excavated material as by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies/reservoirs. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations as mentioned in No. 17. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.16. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Any parties vulnerable for excessive dust residing along the road especially near the University premises and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Special attention should be paid to the university premises ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m from university premises, the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 			
20.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 	Engineering Cost	Contractor	PMU/PIU/RDA,/C onsultant Engineer CEA, GSMB
21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with 	Engineering Cost	Contractor	PMU/PIU/RDA,/C onsultant Engineer CEA,GSMB

		<p>community.</p> <ul style="list-style-type: none"> ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 			
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water bodies/reservoirs and water ways, where necessary along the road corridor (Refer Annex III) ❖ To avoid siltation, drainage paths should not be directed to water bodies/reservoirs, waterways and water canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies/reservoirs. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ All fills and back fills should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. Especially the waterways directed to Smanalawewa Reservoir should have suitable silt traps as given below. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
23.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, university), residential areas and forest area (from 6:00PM to 6:00AM on the following day). ❖ Any parties vulnerable for excessive noise residing along the road especially near the University premises and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ All equipment and machinery should be operated at noise levels that do not exceed 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA

		<p>the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU.</p> <ul style="list-style-type: none"> ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Any parties vulnerable for excessive noise residing along the road especially near the University premises and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
24.	Vehicular noise pollution at residential sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas (including forest area). ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
25.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Any parties vulnerable for excessive vibration residing along the road especially near the University premises, Buddha shrine at starting point, temple at 1km and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

		<p>criteria, if vibration levels exceed the relevant vibration criteria.</p> <ul style="list-style-type: none"> ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 			
26.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away at least 200m away from water ways and water bodies/reservoirs. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA,/C onsultant Engineer CEA
27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer

		<ul style="list-style-type: none"> ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		appropriate remedial actions			
30.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from water bodies, waterways and near to any other environment and social sensitive locations, such as the University and Rajawaka Proposed Forest Resrve. ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer, MoH
32.	Prevention of Vector borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
33.	Gender issues including	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service 	Engineering	Contractor	PMU/PIU/RDA/Co

	Gender base violence	<p>provided to the project should not be classified on the Gender basis.</p> <ul style="list-style-type: none"> ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can happen at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Cost		nsultant Engineer
34.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers’ grievances and complaint/ suggestion boxes can be placed at the supervision consultant’s office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer, MoH
35.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with the relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer, Traffic Police

36.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction for all houses and public properties which have already obtained access from the road. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> ❖ Prior approval and consent should be taken from the DoF before commencement of the construction activities of the road, located within the Rajawaka Proposed Forest Reserve area. ❖ All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized ❖ All construction activities should be limited to the existing ROW of the road located within the forest area and contractor should not be allowed to encroach the land belongs to the Rajawaka Proposed Forest Reserve. ❖ Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. ❖ Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. ❖ If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. ❖ Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. ❖ Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. ❖ The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. If the existing ROW is not sufficient for the tree planting, contractor would 	Engineering Cost	PMU/PIU/RDA/Contractor	PMU/PIU/RDA/Consultant Engineer, DoF

		<p>be able to select a suitable place in public land for the purpose.</p> <ul style="list-style-type: none"> ❖ The contractor shall build hardy structures around the trees for protection. ❖ The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract ❖ Replanting should be as near as possible to the removal location planting of selected fast growing trees which are of native species 			
39.	Chance found important flora	<ul style="list-style-type: none"> ❖ During construction, if a rare/threatened/endangered flora species is found, it shall be immediately informed to the PIU/PMU and RDA by the contractor. All activities that could destroy such flora and/or its habitats shall be stopped with immediate effect. Such activities shall be started only after obtaining the Engineer's approval. Contractor shall carry out all activities and plans that the Engineer instructed him to take to conserve such flora and/or its habitat. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, DoF
40.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> ❖ All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal, especially within the road sections runs through the Rajawaka Proposed Forest Reserve. ❖ Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. ❖ No solid or liquid waste should be dumped into natural habitats and erosion of soil to streams should also be avoided ❖ Regular and adequate fuel supplies of LPG or Kerosene to worker camps in order to avoid workers scavenging for fuel from the proposed forest reserves. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Chance found important fauna	<ul style="list-style-type: none"> • During construction, if a rare/threatened/endangered fauna species is found, it shall be immediately informed to the PIU/PMU and RDA by the contractor. All activities that could destroy such fauna and/or its habitat shall be stopped with immediate effect. Such activities shall be started only after obtaining the Engineer's approval. Contractor shall carry out all activities and plans that the Engineer instructed him to undertake to conserve such fauna and/or its habitat. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, DWLC/DoF
42.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. ❖ Vehicles should be covered during transportation of cleared vegetation to and from the construction site. ❖ Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. ❖ Washing the vehicles should be conducted periodically to prevent carrying any invasive species ❖ The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Chance find procedures for	<ul style="list-style-type: none"> ❖ All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of 	Engineering	Contractor	PMU/PIU/RDA/Co

	PCRs and Archeological Property	<p>the Government and shall be dealt with as per provisions of the relevant legislation.</p> <ul style="list-style-type: none"> ❖ The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. ❖ The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Cost		nsultant Engineer
44.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
45.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental and social related matters. All public complaints will be entered into the Complaints Register. The Environmental and Social Safeguards Officer (ESSO) will promptly investigate and review environmental and social complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
46.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
47.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor 	Engineering Cost	Contractor	RDA,/Consultant Engineer, PRDA

		demobilizes.			
48.	Environmental Enhancement/ Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
49.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA./Consultant EngineerPRDA
50.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
51.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultations conducted with communities living beside the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	GramaNildari - Kinchigune	Male	<ul style="list-style-type: none"> • This road provides access to Agriculture Department of Sabaragamuwa University and to Samanalawewa reservoir. • Many people visit the reservoir. • The people living along the road are engaged in farming.
11.03.2021	Owner of a commercial unit	Male	<ul style="list-style-type: none"> • There are around 50 houses along this road and there is a training center of the Ceylon Electricity Board. • There are private and government lands along the road.

2.4. ESMP of SR 04 – Wikiliya Pansala Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 04 - Wikiliya Pansala Road (2.1km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background **Wikiliya Pansala Road**

Road length: 2.10km

Coordinates: Starting Point: 6° 36.909'N, 80° 44.145'E
End Point: 6° 37.282'N, 80° 44.998'E

Location:

District: Ratnapura

DS Division: Balangoda

EE Division: Pellmadulla

GN Divisions: Wikiliya, Damahana

1. Introduction

The Wikiliya Pansala Road (2.10km) starts from Kirimatitenna-Galgoda (B223) road and ends connecting Balangoda - Bowatte-Kaltota (B038) Road. This road is under the custody of Balangoda Pradeshiya Sabah (local authority). The surface of the road is concrete, interlock and degraded macadam. Road traverses along a hilly terrain and elevation of the trace vary between 505 - 575m MSL. The road runs parallel to a small stream located from 0.12km to 0.84km on RHS and crosses a stream at 1.87km.

2. Road Rehabilitation:

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.10km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), and drain 0.7m (one side). The estimated time frame for construction of this road is four (4) months.

3. Right of Way

There is no demarcation established at site laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls normally erect along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases also there's a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Wikiliya Pansala road is around 6m and the average carriageway is 3.6m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Pradeshiya Sabah (local authority) of Balangoda will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Balangoda Pradeshiya Sabah (local authority) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits:

The road links two national roads, Kirimatitenna-Galgoda (B223) road and Balangoda - Bowatte-Kaltota (B038) and therefore, it is important this road to be developed. There are agricultural activities such as paddy and vegetable cultivations and road development will facilitate the transportation of these agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and collect all available information and take photographs(see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Wikiliya Pansala Road will have a majority of reversible, small-medium scale environmental and social impacts. The main environmental impacts include minor landslide risks and temporary impacts to waterways and water quality. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area:

Settlements: There are about 30 households located on both sides of the road with an estimated population of 114. The majority of the people are Sinhala Buddhists. Some Indian Tamils families also live in some sections of the road. They are Hindus by religion.

- **Land ownership:** There are no squatters along the road. Lands are under private and government ownership. There are titleholders and permit holders.

- **Livelihoods:** Paddy and vegetable cultivation are the main sources of livelihoods. Some people work as wage labourers. Residents are also engaged in public and private sector jobs and self-employment.
- **Local organisations:** There are Farmer Organisations in the area.
- **Community infrastructure and resources:** There is a temple, Bo tree and Buddha shrine as shown in the Table 1. During construction period, access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table1: **Community infrastructure and resources**

Community infrastructure & resources	Location		Chai nge	Road side	Distance from the RoW
WijayaThennakonMudali ndaramaya Temple	6°37'9.89"N	80°44'53.06"E	1.6	RHS	10m
Wall of a Bo tree(Bodhigaraya)	6°37'9.74"N	80°44'46.35"E	1.42	RHS	Edge of the RoW
Buddha Shrine	6°37'17.00"N	80°44'59.85"E	End point	LHS	1.0 m

- **On-going development projects:** None.
- **Visitors to the area:** The road provides access to surrounding recreational places and visitors use this road as an access road.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or

Screening Questions	Not known	Yes	No	Remarks
				reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Balangoda Pradesiya Sabha (local authority).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		The RoW is owned by Balangoda Pradesiya Sabha). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				

Screening Questions	Not known	Yes	No	Remarks
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a temple; a Bo tree and a Buddha shrine (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Weligepola Police station which is 4.450km away from project site. Further, “MithuruPiyasa” ⁴ center is located in Balangoda hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the

⁴ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
				contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be taken to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project
Sub-project: Wikiliya Pansala Road (SR.04)
Location: District: Rathnapura
 DS Division: Balangoda
Length: 2.1km

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?		√	
- Cultural heritage site		√	
- Protected Area		√	
- Wetland		√	
- Mangrove		√	
- Estuarine		√	
- Buffer zone of protected area		√	
- Special area for protecting biodiversity		√	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		√	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		√	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sedimentation streams affected by increased soil erosion at construction site?	√		<p>No permanent stream diversion is needed. However streams at 4.4km where new culvert to be constructed and at 0.22, 0.52, 0.68, 0.71, 0.75, 0.82, 0.88, 0.97, 1.03, 1.18, 1.2 and 1.93 will be temporary diverted for culvert reconstructions. Water flow of these locations will be facilitated to the downstream and will be restored to original condition after the need is over.</p> <p>Soil erosion control measures such as silt traps and silt fences will be applied at</p>

			waterbodies to minimize siltation.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	√		<p>Road runs parallel to a small stream located from 0.12km to 0.84km on RHS, with 20-100m distance downward, crosses a stream at 1.87 (Steel bridge) and small stream at 1.03km.</p> <p>This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies, installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.</p>
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	√		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	√		<p>Blasting works will not be necessary.</p> <p>Noise and vibration levels generated due to civil works will be managed within the particular national standards. Specially the sensitive receptors as given in the Question 8 of the Social Screening Checklist.</p>
- Dislocation or involuntary resettlement of people		√	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	√		Regular sprinkling of water to suppress dust and avoiding construction activities during night time.

- Hazardous driving conditions where construction interferes with pre-existing roads?		√	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	√		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will mitigate these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	√		Avoiding possibilities of water stagnation areas within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	√		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		√	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		√	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Wikiliya Pansala Road



Figure 1: Starting point of the road at Kirimetiya -Galgoda road (B223)



Figure 2: Along the road



Figure 3: A damaged section of the road



Figure 4: Wijaya Thennakon Mudalindaramaya temple located at 1.6 km on RHS



Figure 5: Bridge at 1.8 km



Figure 6: End point

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Wikiliya Pansala Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Side drains and cross drains directed to the stream runs parallel to road from 0.12 - 0.84km, are recommended to have proper silt control measures (brush barriers) to avoid siltation of the stream.	<ul style="list-style-type: none"> • Section 10, 15, 39 of ESMP
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	<ul style="list-style-type: none"> • Section 11, 41 of ESMP • Any guidance to be issued by NBRO
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 04 Wikiliya Pansala Road

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat. Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation.</p> <ul style="list-style-type: none"> ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ The construction will commence only upon the written approval of the Engineer. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area 	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<p>(if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force.</p> <ul style="list-style-type: none"> ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Provision of paved area for unloading and storage of fuel oil, lubricant oil, away from storm water drainage and a provision of roof where appropriate to avoid interception with the rain ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tankbeds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority. Extraction of water from ground water or surface water bodies without the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>permission from Engineer and the relevant authority (Water Resources Board) NW&DB, Department of Irrigation, CBO) is not allowed.</p> <ul style="list-style-type: none"> ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 			
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes and project's grievance redress mechanism via a documented community consultation session ○ These sessions need to be conducted in both Sinhalese and Tamil languages, given the ethnic composition of the project area. ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ In case of any complaint referring to GN and DS level GRM, the contractor should have the copy of the minutes of such decisions. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer

8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public in all local languages about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT

10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO) and Natural Resources Management Centre (NRMC). ❖ Existing slopes should not be disturbed to extent possible ❖ Incorporate the recommendations and guidelines of the NBRO and NRMC to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO, NRMC
12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead away in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Balangoda PS

13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Balangoda PS
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the designated forest land and water bodies (stream runs parallel to the road) ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>community , in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha,</p> <ul style="list-style-type: none"> ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations, water bodies. 			
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems.</p> <ul style="list-style-type: none"> ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations as mentioned in No. 13. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 			
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.16. ❖ Any parties vulnerable for excessive dust residing along the road such as temple at 1.6km, and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
10	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA, GSMB

		<p>such sites.</p> <ul style="list-style-type: none"> ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 			
11.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA,GSMB

12.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
-----	--	--	------------------	------------	---------------------------------

		<p>earthwork or other items of work and no separate payment will be made for their implementation.</p> <p>Erosion control measures as presented in Annex III should be used where applicable.</p>			
20.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ Any parties vulnerable for excessive noise residing along the road such as temple at 1.6km and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA
21.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 			
22.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Any parties vulnerable for excessive vibration residing along the road such as temple at 1.6km, wall of the Bo tree at 1.4km, Buddha shrine at end point and within residential areas, temple and Buddha Shrine should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB
23.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and streams. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA

		<p>disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment.</p> <ul style="list-style-type: none"> ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 			
24.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		during the operation period of the road.			
25.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
26.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 			
27.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, streams and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA
28.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer, MoH

29.	Prevention of Vector borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
30.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
31.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		<ul style="list-style-type: none"> ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 			
32.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with a relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
33.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Protection of Physical Cultural Resources close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>requisite measures to ensure so.</p> <ul style="list-style-type: none"> ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 			
35.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
36.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. • No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

37.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. • Washing the vehicles should be conducted periodically to prevent carrying any invasive species • The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> • All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. • The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. • The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
39.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The Environmental and Social Safeguards Officer (ESSO) will promptly investigate and review environmental complaints and implement the appropriate 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>corrective actions to arrest or mitigate the cause of the complaints.</p> <ul style="list-style-type: none"> ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
41.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. ❖ It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer, NBRO
42.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
43.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as 	Engineering Cost	Contractor	RDA./Consultant Engineer, PRDA

		<p>well</p> <ul style="list-style-type: none"> ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 			
44.	Environmental Enhancement/ Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
45.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA./Consultant EngineerPRDA
46.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
47.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultations conducted for IRCDP.

Stakeholder consultations conducted with communities living beside the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	Social Service Officer, Balangoda Divisional Secretariat	Male	<ul style="list-style-type: none">• The road needs to be developed.• The villagers will support the project.• People in the area engage in agricultural activities.• There are poor people in the project area.
11.03.2021	Resident	Male	<ul style="list-style-type: none">• There are around 30 families along the road and majority is Sinhalese.

2.5. ESMP of SR 05 - Kumaragama Randola Road (3.4km)



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 05 - Kumaragama Randola Road (3.4km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background

Kumaragama Randola Road

Road length: 3.4km

Coordinates: Starting Point 6° 38.108'N, 80° 42.177'E
End Point: 6° 37.623'N, 80° 43.222'E

Location:

District: Ratnapura
DS Division: Balangoda
EE Division: Pellmadulla
GN Divisions: Thalangama, Kirimetitenna

1. Introduction

The Kumaragama Randola Road (3.4km) starts at Colombo-Ratnapuara-Wellawaya-Batticaloa Road (A004), and provides a connection to Kirimatitenna-Galgoda (B223) road. This road is under the custody of Balangoda Pradesiya Sabha (local authority). The surface of the road is concrete and damaged macadam. Road traverses along a hilly terrain and elevation of the trace vary between 445 - 557m MSL. Road surface is damaged macadam and there are few scatted locations with concrete. Road crosses a small stream at 0.4km. This section of the road is not located within or adjacent to a protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing RoW for 3.4 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), and a drain 0.7m (one side). The estimated construction period for this road is five (5) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls normally are erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average right of way (RoW) of the Kumaragama Randola road is around 5m, and the average carriageway is 4m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. Balangoda Pradeshiya Sabah (local authority) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Balangoda Pradeshiya Sabah (local authority) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to two national roads, Colombo-Ratnapuara-Wellawaya-Batticaloa Road (A004) and provides a connection to Kirimatitenna-Galgoda (B223) road. There are tea cultivations and home gardens grown with minor cash crops such as pepper in the project area. The road is used for transportation of these agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Kumaragama Randola Road will have a majority of reversible, small-medium scale environmental and social impacts. Temporary streams diversions and water quality impacts are the environmental impacts could be generated which are restricted to the construction phase of the project. The main social impacts will be temporary loss of access to residents and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:**
- There are about 13 households and 13 small shops located on both sides of the road with an estimated population of 100. The majority of the people are Sinhalese. There are also Indian Tamil and Muslim families living in some sections of the road. Buddhism, Hinduism and Islam are the religions of the people.
- **Land ownership:** There are no squatters along the road. All the lands are private and Government lands
- **Livelihoods:** Tea cultivation is the major source of livelihood and income. Home gardens grown with minor crops such as pepper also generate incomes for the residents. Some people are engaged in wage labour, public and private sector jobs and self-employment.
- **Local organisations:** There are Farmer organisations in the area
- **Community infrastructure and resources:** There's one school in the vicinity (Table 1). The access to the school will not be affected due to road rehabilitation work.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location		Chainage	Road side	Distance from the RoW
School	6°38'1.90"N	80°42'12.60"E	0+200	LHS	100 m

O

n-going development projects: None.

- **Visitors to the area:** There is a tea factory in the project area. Thus, frequent visitors are expected for trading activities.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of		✓		The road surface will be upgraded

Screening Questions	Not known	Yes	No	Remarks
existing facilities?				with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Balangoda Pradesiya Sabha(local authority)
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		✓		The RoW is owned by Balangoda Pradeshiya Sabha (local authority). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	

Screening Questions	Not known	Yes	No	Remarks
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing ROW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There's one school in the vicinity (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Balangoda Police station which is 2km away from project site. Further, "MithuruPiyasa" ⁵ center is located in the Balangoda hospital.

⁵ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A

2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project
Sub-project: Kumaragama Randola Road (SR5)
Length: 3.4 km
Location: District: Rathnapura
 DS Division: Balangoda

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?		√	
- Cultural heritage site		√	
- Protected Area		√	
- Wetland		√	
- Mangrove		√	
- Estuarine		√	
- Buffer zone of protected area		√	
- Special area for protecting biodiversity		√	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		√	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		√	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sedimentation streams affected by increased soil erosion at construction site?	√		Permanent alteration of streams will not be required. However temporary diversion of streams will be required at new culvert; 2.3km and culverts to be reconstruct at 0.45, 0.98, 1.26, 2.04, 2.48, 2.58, 2.71, 2.84, 2.9, 2.91 and 2.96km. Water flow to the downstream will be facilitated during construction phase at above locations and streams will be restored to original condition after the requirement is over. Soil erosion control measures

			will be applied to minimize siltation of above streams.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	√		Road crosses a small stream at 0.4km (a bridge is located) and minor canals at 0.98km and 2.48km. This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies, installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	√		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	√		Blasting works will not be necessary. Noise and vibration levels generated due to civil works will be managed within the particular national standards. Specially the sensitive receptors as given in the Question 8 of the Social Screening Checklist.
- Dislocation or involuntary resettlement of people		√	
- Other social concerns relating to inconveniences in living conditions in the	√		Regular sprinkling of water to suppress dust and avoiding

project areas that may trigger cases of upper respiratory problems and stress?			construction activities during night time.
- Hazardous driving conditions where construction interferes with pre-existing roads?		√	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	√		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will mitigate these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	√		Avoiding possibilities of water stagnation areas within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?		√	
- Increased noise and air pollution resulting from traffic volume?		√	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		√	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Kumaragama Randola Road



Figure 1: Starting point of the road at Colombo-Batticaloa highway (A004)



Figure 2: Settlements located on both sides of the road



Figure 3:Along the road



Figure 4:End point of the road

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Kumaragama Randola Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	<ul style="list-style-type: none"> • Section 11, 41 of ESMP • Any guidance to be issued by NBRO
Public highlighted that there is no proper drain system along the road. Therefore water flows over the road and road is slippery during rainy season. Therefore, it is recommended to introduce additional culverts, lead away drains and side drains etc. to improve the drainage along the road.	<ul style="list-style-type: none"> • Section 10 of ESMP • Bridge design manual of RDA
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 05 Kumaragama Randola Road

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat. Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> vegetation. ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence only upon the written approval of the Engineer and then the relevant local authority. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the local Public Health Inspector (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An 	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<p>emergency plan shall be prepared to fight with any emergency like fire.</p> <ul style="list-style-type: none"> ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, Department of Irrigation, CBO) will not be allowed. ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer.			
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes and project's grievance redress mechanism via a documented community consultation session ○ These sessions need to be conducted in both Sinhalese and Tamil languages, given the ethnic composition of the project area. ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ In case of any complaint referring to GN and DS level GRM, the contractor should have the copy of the minutes of such decisions ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT

		<p>utility disruption</p> <ul style="list-style-type: none"> ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public in all local languages about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 			
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO) ❖ Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO, NRMC
12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead away drains in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Balangoda PS
13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement 	Land Acquisition cost	PIU/PMU of RDA	RDA, Balangoda PS

		matrix of RPF.			
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the designated forest land and water bodies (stream runs parallel to the road) ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations, water bodies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the site. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Any parties vulnerable for excessive dust residing along the road especially within residential areas and around the School at 0.2km should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
10	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA, GSMB

		<p>shall not be a danger of health hazard to the people.</p> <ul style="list-style-type: none"> ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 			
11.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA,GSMB
12.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways. where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>with fixed polythene sheeting to avoid excessive erosion.</p> <ul style="list-style-type: none"> ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Refer Annex III for erosion control measures which should be used at applicable locations. 			
20.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ Any parties vulnerable for excessive noise residing along the road especially within residential areas and around the School at 0.2km should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA

		<p>(crushers, asphalt, concrete and batching plants).</p> <ul style="list-style-type: none"> ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
21.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
22.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Any parties vulnerable for excessive vibration residing along the road especially within residential areas and around the School at 0.2km should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

		<p>controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work.</p> <ul style="list-style-type: none"> ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 			
23.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and streams. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA
24.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>activities.</p> <ul style="list-style-type: none"> ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
25.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
26.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 			
27.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, streams and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA
28.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer, MoH

		<p>workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff.</p> <ul style="list-style-type: none"> ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 			
29.	Prevention of Vector borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities <ul style="list-style-type: none"> ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
30.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
31.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		<p>by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.</p> <ul style="list-style-type: none"> ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 			
32.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with the relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
33.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so.</p> <ul style="list-style-type: none"> ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 			
35.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
36.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>Hunting, poaching and unauthorized fishing by project workers is not allowed.</p> <ul style="list-style-type: none"> No solid or liquid waste should be dumped into natural habitats. 			
37.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. <ul style="list-style-type: none"> Vehicles should be covered during transportation of cleared vegetation to and from the construction site. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. Washing the vehicles should be conducted periodically to prevent carrying any invasive species The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
39.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> The Contractor shall appoint an Environmental and Social Safeguards Officer (ESSO) who is responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review environmental and social complaints and implement the appropriate 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>corrective actions to arrest or mitigate the cause of the complaints.</p> <ul style="list-style-type: none"> ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
41.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. ❖ It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer, NBRO
42.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
43.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches 	Engineering Cost	Contractor	RDA./Consultant Engineer, PRDA

		<p>filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer.</p> <ul style="list-style-type: none"> ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 			
44.	Environmental Enhancement/ Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
45.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA,/Consultant EngineerPRDA
46.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
47.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted with communities living beside the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	Grama Niladari - Thalangama	Male	<ul style="list-style-type: none">• All three ethnicities, Sinhalese, Tamil and Muslims live along this road.• This road is very unsafe to use during rainy days as it's slippery.• People along the road engage in wage labor and agriculture.
11.03.2021	Resident	Male	<ul style="list-style-type: none">• The storm water flows along the road and road gets damage.• The drainage needs to be improved along the road.• Many people use this road and it's good to develop the road.
11.03.2021	Road User	Male	<ul style="list-style-type: none">• It is difficult to use this road as it is damaged.• There are many road users, and it is good to develop the road.

2.6. ESMP of SR 06 – Berenduwa - Banagala - Kempanawatta - Batewela Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 06 – Berenduwa - Banagala - Kempanawatta -
Batewela Road (4km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background
Berenduwa- Banagoda – Kempanawatta - Batewela Road

Length: 4.0km

Coordinates: Starting Point : 6° 40.149'N, 80° 30.211'E
End Point : 6° 41.415'N , 80° 29.816'E

Location: District: Rathnapura
DS Division: Pelmadulla, Rathnapura
EE Division: Rathnapura
GN Divisions: Berenduwa, Banagoda, Heen Berenduwa

1. Introduction

Berenduwa-Banagoda-Kempanawatta-Batewela Road (4.0km) starts from a provincial road called Hettikanda and provides connection to Wewalwatta Bellangana Road. This road is under the custody of Pelmadulla and Rathnapura Pradeshiya Sabahs (local authorities). Road is located within medium terrain area. Elevation of the trace varies between 134 – 244m MSL. The road surface is damaged macadam. Proposed section of the road is not located within or adjacent to a protected area.

2. Road Rehabilitaton

This road was selected for improvements under Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 4km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved.. Proposed improvements to the road section: carriageway 3.3m, shoulder 0.5m (both sides), drain 0.7m (one side). Estimated construction time period of this road is six (6) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan also. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Berenduwa Banagoda – Kempanawatta - Batewela Road is around 5m and the average carriageway is 3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. Rathnapura and Pelmadulla Pradeshiya Sabahs (local authorities) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from respective Pradeshiya Sabahs (local authority) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to two national roads, Colombo-Ratnapura-Wellawaya-Batticaloa Road (A004) and provides a connection to Kirimatitenna-Galgoda (B223) road. There are tea cultivations and home gardens with minor crops such as pepper in the project area. The road is used for transportation of these agricultural produce.

It is important to develop this road as the surface is damaged and the road is a bus route. Therefore, it's difficult for commuters to travel in this road. Residents in the project area thus, welcomed this development project. There are tea cultivations such as Tea, Rubber and Cinnamon in the project area. The road is used for transportation of these agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared Draft Environment and Social Screening Checklists, and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information for the social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Berenduwa-Banagoda-Kempanawatta-Batewela Road will have a majority of reversible, small-medium scale environmental and social impacts. Temporary diversions of streams to reconstruct culverts and landslide risks are the anticipated environmental impacts. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1. Project Impact Area

- **Settlements:** There are about 43 households living along the road. There are also about 8 shops along the road. The population is around 194. All residents are Sinhala Buddhists.
- **Land ownership:** There are private and government lands along the road.
- **Livelihoods:** There are tea, rubber and cinnamon cultivations along the road. The people in the area engage in these cultivation activities. Residents are engaged in public and private sector jobs as well.
- **Local organisations:** There is a tea smallholders' organisation within the area.
- **Community infrastructure and resources:** There is a school, preschool, temple and a shrine (Table 1). During construction period, the access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & n resources	Location - GPS Coordinate		Road side	Distance from the RoW
Lellopitiya Tamil School	N 6°40'10.10	E 80°30'12.31"	LHS	4m
Shrine	N6°40'31.87"	E80°30'10.85"	RHS	7m
Preschool	N6°40'30.50"	E80°30'10.54"	RHS	12m
Temple	N6°40'43.76"	E 80°30'8.49"	RHS	9m

ment projects: None.

- **Visitors to the area:** There are tea, rubber and cinnamon cultivations along the road. Therefore, people from outside come for trading activities in the project area.

7.1. Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Pelmadulla and Ratnapura Pradeshiya Sabhas (local authorities).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		The RoW is owned by Pelmadulla and Ratnapura Pradeshiya Sabhas (local authorities). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what			✓	

period?				
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a school, a preschool, a temple and a shrine (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Pelmadulla Police station which is 8km away from the project site. Further, “MithuruPiyasa” ⁶ center is located in Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be

⁶ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

				used by the contractors. Approximately 25 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 25. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: Berenduwa – Banagoda – Kempnawatta – Bateweala Road (SR06)
Road Length: 4 km
Location: District: Ratnapura
 Divisional Secretariat: Pelmadulla, Rathnapura
 G/N Division: Berenduwa, Heen Berenduwa

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location		√	
Is the Project area adjacent to or within any of the following environmentally sensitive areas?		√	
- Cultural heritage site		√	
- Protected Area		√	
- Wetland		√	
- Mangrove		√	
- Estuarine		√	
- Buffer zone of protected area		√	
- Special area for protecting biodiversity		√	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		√	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		√	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sedimentation streams affected by increased soil erosion at construction site?	√		No permanent alteration is needed. However streams will be temporary altered for new culvert construction at 3.43km and reconstruction of existing culverts; 0.83, 1.35, 1.72, 2.05, 2.2, 2.22, 2.24, 2.51, 2.63, 2.66, 2.9 and 3.88km. These waterways will be restored to the original condition. Site specific soil conservation measures shall be applied in order to minimize siltation of these water bodies.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	√		Surface water quality will be deteriorated due to surface runoff contaminated with silt. Appropriate measures shall be taken to avoid contamination of surface runoff by silt and other

			chemicals used for construction and wastewater from workers camps. Providing adequate and appropriate facilities for Labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	√		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	√		Noise and ground vibration will be increased due to compaction and heavy vehicle movement. All work will be within regulated noise and vibration levels and suitable measures to be taken to reduce ground vibration and noise accordingly. Blasting along the road is not necessary.
- Dislocation or involuntary resettlement of people		√	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	√		Settlements are located at 0.0km – 0.2km. Excessive dust problem will result inconvenience to living conditions and cause respiratory disease. Frequent watering of the dry surfaces shall be practiced to avoid dust problem at above location when commence the works. Night time works shall be avoided to minimize stress issues.
- Hazardous driving conditions where construction interferes with pre-existing roads?		√	

- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	√		Location of labor camps only at approved sites and sanitary facilities should be increased to avoid common diseases such as Amoebic dysentery and diarrhea.
- Creation of temporary breeding habitats for mosquito vectors of disease?		√	
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	√		
- Increased noise and air pollution resulting from traffic volume?		√	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		√	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Berenduwa – Banagoda – Kempanawatta – Bateweala Road



Figure 1: Starting point of the road



Figure 2: Lellopitiya school located at 0.07 km on LHS of the road



Figure 3: Cinnamon cultivated lands near the road

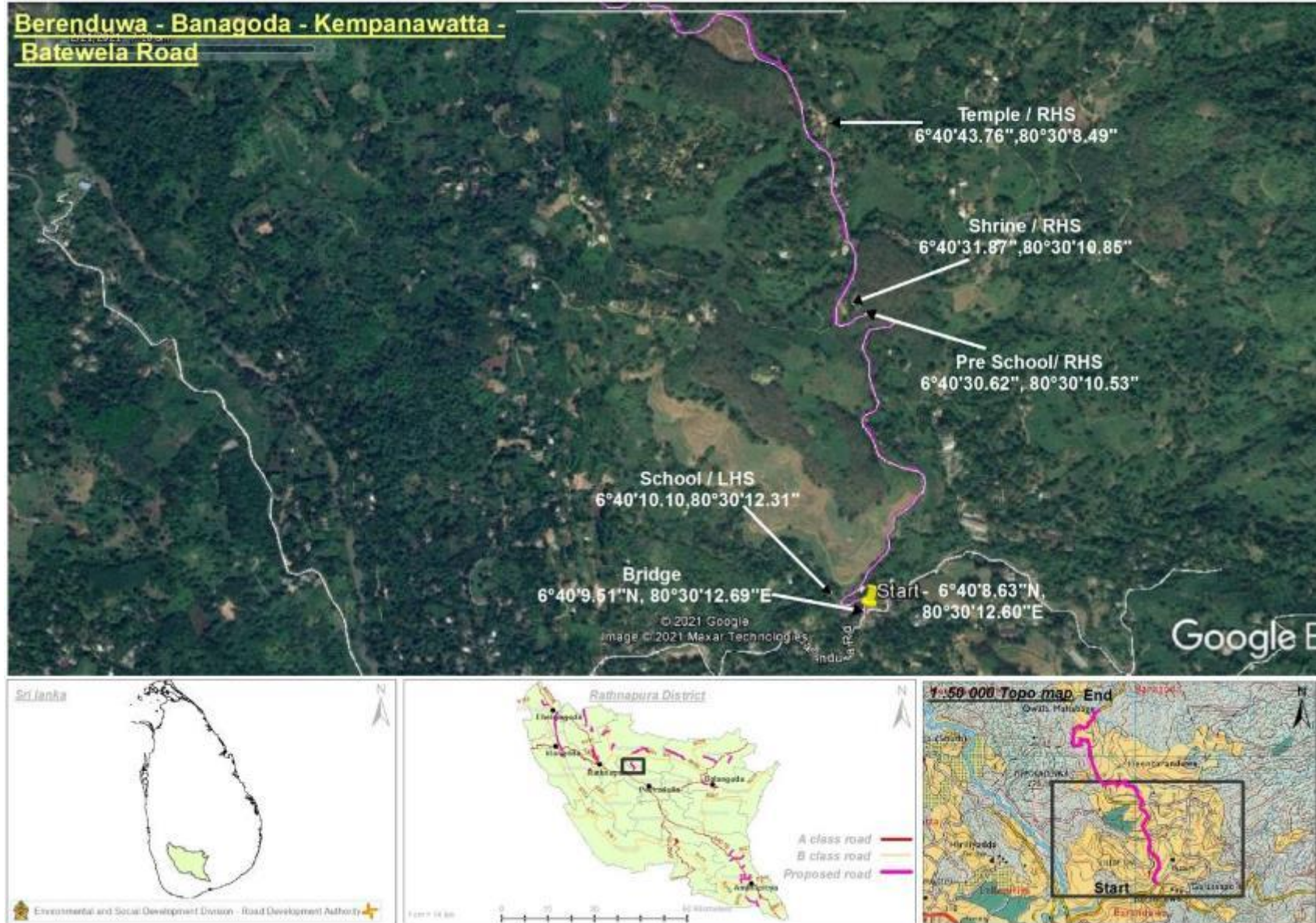


Figure 4: Preschool located at 1.260 km on RHS of the road



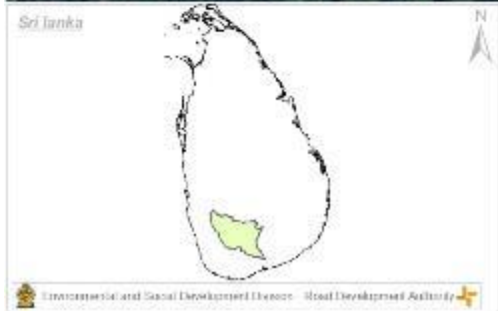
Figure 5: End point of the road

Appendix 2 - Location Map



**Berenduwa - Banagoda - Kempanawatta -
Batewela Road**

6°41'24.71"N, -
80°29'49.00"E End



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Berenduwa Banagala Kempanawatta Batewela Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Existing slopes at Ch 0+050- 0+200 km LHS should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	<ul style="list-style-type: none"> • Section 11 of ESMP • Section 42 of ESMP • Any guidance to be issued by NBRO
Adequate safety measures to be taken during the construction as well as operation stage preschool located at 1+260 km RHS	<ul style="list-style-type: none"> • Section 25 & 27 of ESMP
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of Berenduwa-Banagoda-Kempanawatta-Batewela Road under the Inclusive Rural Connectivity and Development Project of Sabaragamuwa Province

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPARATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineer's review and approval. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Rathnapura). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ○ The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence after receiving the written approval of the Engineer as well as Local Authority. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area 	Engineering Cost	Contractor,PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<p>(if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force.</p> <ul style="list-style-type: none"> ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material are sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, Department of Irrigation, CBO) will not be allowed. ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign lease agreement with the land owners and the contractor. ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB,NW&DB, SLT
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation Agrarian Department and Provincial Irrigation Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Prior approval should be taken for canal diversion from the relevant government organization and farmer's organizations. ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO). ❖ Existing slopes should not be disturbed to extent possible ❖ Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO, NRMC

12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, leader ways in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Pelmadulla PS and Ratnapura PS
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer, Pelmadulla PS and Ratnapura PS
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ The contractor shall identify the sites for disposal of material cleared. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>damaged / affected and that the traffic is not interrupted</p> <ul style="list-style-type: none"> ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in non-residential areas located in the downwind side ○ Located at least 100m away from the boundaries and buffer zones of protected/forested areas and water bodies (stream, etc..). ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA Pradeshiya shabha, ○ Minimize the construction debris/excavated materials by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 			
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area 	Engineering	Contractor	PMU/PIU/RDA/Consultant

	Cover and Vegetation	<p>designated/ approved by the Engineer.</p> <ul style="list-style-type: none"> ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Cost		Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Vulnerable receptors for high dust levels such as school 0.07km, pre school 1.260km, temple 1.610km and residential area should be identified by the Contractor in advance and necessary location specific measures as agreed with the Engineer should be applied to mitigate the impact. ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m from the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 			
20.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA, GSMB
21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA,GSMB

		<ul style="list-style-type: none"> ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 			
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities, excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>minimized.</p> <ul style="list-style-type: none"> ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Erosion control measures as given in Annex III should applied where necessary. 			
23.	Noise from vehicles, and machinery equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals and residential areas from 6:00PM to 6:00AM on the following day). ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ Vulnerable receptors for high noise levels such as school at 0.07km, shine at starting point, pre school 1.260km, temple at 1.610km and houses located adjacent to the ROW should be identified by the Contractor in advance and necessary location specific measures as agreed with the Engineer should be applied to mitigate the impact. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA

24.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
25.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Vulnerable receptors for high vibration levels such as School 0.07km, shine at starting point, pre school 1.260km, temple 1.610km and the houses located adjacent to the road should be identified by the Contractor in advance and necessary location specific measures as agreed with the Engineer should be applied to mitigate the impact. ❖ Prior to commencement of compaction, excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

		<p>these provisions contractor is liable for any damage caused by excessive vibration and blasting work.</p> <ul style="list-style-type: none"> ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 			
26.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>during the ESMP training prior to the start of the construction activities.</p> <ul style="list-style-type: none"> ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>be adhered to.</p> <ul style="list-style-type: none"> ❖ First aid facilities and nursing staff to be provided at work places ❖ Provision of adequate transport facilities for moving injured persons to the nearest hospital ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. 			
29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
30.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camps are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF

		<p>toilets and urinals.</p> <ul style="list-style-type: none"> ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 			
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details.. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant EngineerMoH
32.	Prevention of Vector borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
33.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 			
34.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
35.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police

		<ul style="list-style-type: none"> ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed, the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 			
36.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having atleast 3ft height suitable for the location as identified by the Engineer The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 			
39.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. • No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. <ul style="list-style-type: none"> • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. • Washing the vehicles should be conducted periodically to prevent carrying any invasive species • The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

41.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The Environmental Officer will promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the Environmental Officer on complains thereof. 			
44.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer NBRO

		<p>needs additional cutting or filling.</p> <ul style="list-style-type: none"> ❖ It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 			
45.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
46.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ Rehabilitation of quarry / borrow pits are to be a safe and secure area ❖ quarry / borrow pits can be backfilled with construction waste ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the Engineer for information. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA./Consultant EngineerPRDA

47.	Environmental Enhancement/ Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
48.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA,/Consultant Engineer PRDA
49.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
50.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted with the communities living beside of the road.

Venue	Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
		Type of Stakeholder	Number of Participants (M/F)	
SR 06: Berenduwa – Banagoda – Kemanawatta – Batewela Road	12.03.2021	GramaNiladhari - HeenBerenduwa	Male	<ul style="list-style-type: none"> • There are agriculture lands. Ex: Tea, Rubber, Cinnamon • Land ownership is Government and Private. • People in the area work in agriculture lands. • People in the area are Sinhala Buddhists.
	11.03.2021	Counsellor, Ratnapura Divisional Secretariat Division	Male	<ul style="list-style-type: none"> • There are no NGOs working on GBV in the project area. • This area is an agricultural area. • These rural roads need to be developed and people will welcome the project.
	11.03. 2021	Technical Officer, RDA	Male	<ul style="list-style-type: none"> • The road development is needed as road is not developed for a long time.
	11.03.2021	Road User	Female	<ul style="list-style-type: none"> • The road is damaged, and we like the development. • Majority of people in the area are Sinhalese.

2.7. ESMP of SR07 – Dambuluwana Galathura Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 07 - Dambuluwana Galathura Road (2km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background

Dambuluwana – Galathura Road

Length: 2.0km

Coordinates: Start: 6° 42.854'N, 80° 17.977'E
End: 6° 42.575'N, 80° 17.430'E

Location:

District: Ratnapura
DS Division: Ayagama, Elapatha
EE Division: Ratnapura
GN Divisions: Galathura, Kahawattha

1. Introduction

The Dambuluwana – Galathura Road (2.0km) starts from already developed and asphalted section of the same road and connects with Idangoda – Ayagama (B160) Road. This road is under the custody of the Provincial Road Development Authority (PRDA, Sabaragamuwa). The surface of the road is damaged macadam. The road is located along an undulating terrain and elevation of the trace varies between 26 and 84m MSL. The Galathura stream which is a tributary of Kalu Ganga is crossed by the road at 1.8km. Area around 1.8km and the starting point are prone to floods when the area receives heavy rains which last for more than 2 days. Proposed section of the road does not fall within or adjacent to a protected area.

2. Road Rehabilitation

This road was selected for improvements under Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), drains as required. The estimated time for construction of the road is three (3) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the Row. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The average RoW of the Dambulwana – Galatura road is 5.8m and average carriageway is 3.8m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA, Sabaragamuwa will provide coordination support by attending to any public requests/views and for

drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA, Sabaragamuwa will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

Community members expressed the need for developing this road with proper drainage. Settlements can be observed at the middle and end sections of the 2km section of road. There is rubber, tea and paddy cultivations along the road intermittently with settlements. Thus, the road development will facilitate the transportation of agricultural produces and all-weather condition travel for commuters.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and collect all available information and take photographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic map sand secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladharis and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Dambuluwana Galathura Road will have a majority of reversible, small-medium scale environmental and social impacts. The key temporary environmental impacts would be impacts to waterways due to siltation (Galathura Stream) and temporary alteration of streams for reconstruction of culverts. The main social impacts will be temporary loss of access, impact of dust, noise and vibration to the residents especially within 1km. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to be occured.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** The settlements are in middle and end sections of the road. More than 45 households and 5 small shops are on both sides of the road. The population is about 190. They are Sinhalese and Indian Tamils . They are Buddhists, Hindus and Christians by faith.
- **Land ownership:** The majority of residents are title holders. An Indian Tamil population living in small houses on the estate land was observed at 0+900km.
- **Livelihoods:** The Indian Tamil population works as labourers in rubber and tea plantations. There are also people running small businesses such as grocery shops
- **Local organisations:** There are community-based organisations such as Farmer Organizations and Samurdhi societies in the project area.
- **Community infrastructure and resources:** None
On-going development projects: None
- **Visitors to the area:** People come for trading activities linked to rubber and tea.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	
Is the site chosen for this work free from encumbrances		✓		This road is

Screening Questions	Not known	Yes	No	Remarks
and in possession of the Ministry/ or relevant government agency?				currently under the custody of PRDA (Sabaragamuwa).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		✓		The RoW is owned by PRDA (Sabaragamuwa). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals,			✓	

Screening Questions	Not known	Yes	No	Remarks
places of worship?				
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Idangoda Police station which is (3.5km away from the project site. Further, “MithuruPiyasa” ⁷ center is located in the Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume? Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓ ✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce? Will there be workers brought in from outside the project area?		✓ ✓		Priority will be given to secure labor from the local community. There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

⁷ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province

Sub-project: Dambuluwana Galathura Road (SR07)

Road Length: 2.0 km

Location: District: Ratnapura

DS Division: Ayagama and Elapatha

EE Division: Rathnapura

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permeant alteration of waterways will be required. In construction new hume pipe culvert at 1.43km, stream shall be temporarily diverted during the construction period. This impact will be mitigated by keeping continuous flow rate to the downstream and avoiding disturbance to the flow pattern of the water pathways.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-	✓		Storing construction materials containing small/ fine particles in places which are not

<p>based camps and chemicals used in construction?</p>			<p>subjected to wash away by runoff and keeping temporary soil dumps avoiding water bodies (especially around 1.8km) will minimize this impact. Storing and protecting construction materials such as cement, bitumen and other chemicals including any harmful substances in protected compartments/enclosures and handling carefully to avoid spills, disposing waste containers and material only in approved locations will mitigate this impact. Providing adequate and appropriate facilities for Labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.</p>
<p>- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?</p>	<p>✓</p>		<p>Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.</p>
<p>- Noise and vibration due to blasting and other civil works?</p>	<p>✓</p>		<p>Noise and vibration will be resulted due to most of field construction activities. However Noise and vibration levels of construction activities shall be maintained below maximum permissible levels of the national standards. A special consideration will be paid to the settlements around 1.1km of the road.</p>
<p>- Dislocation or involuntary resettlement of people</p>		<p>✓</p>	
<p>- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper</p>	<p>✓</p>		<p>This impact will occur at settlements located adjacent to the road around 1.1km. Regular sprinkling of water to</p>

respiratory problems and stress?			suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards and avoiding night time construction activities will mitigate this impact.
- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will minimize the requirement of labor camps.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding possibilities of water stagnation within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will ensure occupational and public safety. Proper storing of chemicals, regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Dambuluwana Galathura Road



Figure 1: Start of the Road



Figure 2: Tea lands near the road



Figure 3: Rubber estates at either side of the road



Figure 4: Settlements along the edge of the road around 1.1km



Figure 5: Galathura stream crossing



Figure 6: End of the road (To the reverse direction)

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Dambuluwana Galathura Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
It is recommended to incorporate necessary measures to withstand the road against flood conditions occur around the starting point and from 1.5km – end point such as concreting the road surface and improving the vertical alignment of the road etc...	<ul style="list-style-type: none"> • Section 10 of ESMP • Bridge design manual of RDA
Public highlighted that runoff gets accumulated around the end point of the road even during a minor rain event due to absence of proper drainage facilities. Therefore it is recommended to introduce additional culverts, lead away drains and side drains etc... to improve the drainage at this location.	<ul style="list-style-type: none"> • Section 10, 15, 22, 42 of ESMP • Bridge design manual of RDA
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	<ul style="list-style-type: none"> • Section 11, 44 of ESMP • Any guidance to be issued by NBRO
Side drains and temporary drains (during construction phase) directed to Galathura stream 1.8km are recommended to have silt traps in adequate capacity and other silt control measures.	<ul style="list-style-type: none"> • Section 10, 15, 22 of ESMP
It is recommended to include safety sign boards and other safety measures around 1km where houses are located on both sides of the road and where there is a sharp bend.	<ul style="list-style-type: none"> • Section 27 and 36 of ESMP
It is recommended to recheck the design on ground not to affect any private land or structures especially around 1km and along the road. In case of any occurrence of need of private land strips for safety improvements, consult social experts of the project prior to final design.	
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of Dambuluwana Galathura Road (SR07)

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPARATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Engineers review and approval. 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees along this road was not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Ayagama and Elapath). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer

		<ul style="list-style-type: none"> ○ The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hire labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer prior to their construction. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ The construction of the labor camp will commence only upon the written approval of the Engineer and then from the relevant local authority. ❖ Adequate measures should be provided for proper drainage facilities to the labour camps and to prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Inspector (PHI) ❖ Provision shall be made for domestic solid waste disposal in 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer

		<p>acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force.</p> <ul style="list-style-type: none"> ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from sources which are operated with a valid license. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, Department of Irrigation, CBO) is not allowed. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority.			
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes and project's grievance redress mechanism via a documented community consultation session ○ These sessions need to be conducted in both Sinhalese and Tamil languages, given the ethnic composition of the project area. ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complaints and actions taken to resolve them. ❖ In case of any complaint referring to GN and DS level GRM, the contractor should have the copy of the minutes of such decisions. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer

8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners. ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB,NW&DB, SLT
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department and Department of Agrarian Development ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes ❖ Existing locations where drainage is poor should be improved with inclusion of necessary measures such as additional culverts, 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI

		<p>lead-away drains, side drains etc... (E.g.: immediately before the end point of the road)</p> <ul style="list-style-type: none"> ❖ Location specific measures should be incorporated to the design to withstand the road against flooding situations occur at the starting and end points of the road. 			
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO). ❖ Existing slopes should not be disturbed to extent possible ❖ Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO
12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements, to improve safety including realignment of bends, to avoid bottle necks or construction of cross drainages, lead-away in the locations where required. ❖ All effort will be made to minimize the land donation for the project ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Grama Niladari and/or Divisional Secretariat. ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, PRDA (Sabaragamuwa)

14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers.. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. ❖ Houses located within the 1km should have special attention in allocating access 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies (E.g: Galathura Stream) ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies.			
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. ❖ Storage of fuel, lubricant and chemicals use for the construction 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>activities on paved surface without contamination to the environment and storm water runoff</p> <ul style="list-style-type: none"> ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 			
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Any parties vulnerable for excessive dust residing along the road especially within residential areas within around 1km should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Special attention should be paid to the line houses located adjoining to the ROW around 1km ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
20.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license (Industrial Mining License (IML)) from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA, GSMB

		<ul style="list-style-type: none"> ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the GSMG, CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 			
21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML; ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA,GSMB
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways where necessary along the road corridor (E.g: near Galathura Stream). ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In hilly terrain and areas with slopes; <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Erosion control measures as given in Annex III should be applied where feasible. 			
23.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ Any parties vulnerable for high noise residing along the road especially within residential areas within around 1km should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA

		<p>as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU.</p> <ul style="list-style-type: none"> ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
24.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
25.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration (E.g: line houses around 1km). ❖ Any parties vulnerable for excessive vibration residing along the road especially within residential areas within around 1km should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of excavation, compaction, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

		<p>relevant government agencies and the engineer.</p> <ul style="list-style-type: none"> ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 			
26.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards specified under the NEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set under the NEA. ❖ Engineer will certify that all arrangements comply with the standards specified under NEA and guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA
27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary.</p> <ul style="list-style-type: none"> ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks, not allowing large gatherings...etc.) for prevention of the spread of COVID-19 virus will be adhered to. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. ❖ First aid facilities and nursing staff to be provided at work places ❖ Provision of adequate transport facilities for moving injured persons to the nearest hospital 			
29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
30.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF

		<p>accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.</p> <ul style="list-style-type: none"> ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 			
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer MoH
32.	Prevention of Vector borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
33.	Gender issues including Gender base	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

	violence	<p>other payments due on service provided to the project should not be classified on the Gender basis.</p> <ul style="list-style-type: none"> ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can happen at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 			
34.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers’ grievances and complaint/ suggestion boxes can be placed at the supervision consultant’s office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
35.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police

		<ul style="list-style-type: none"> ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 			
36.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction (Especially for houses around 1km). ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> ❖ All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. ❖ Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. ❖ Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. ❖ If such action is unavoidable the Engineer shall be informed in 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>advance and carry out public consultation and report on the same should be submitted to the Engineer.</p> <ul style="list-style-type: none"> ❖ Contractor shall adhere to the guidelines and recommendations made by the CEA/DS, if any with regard to felling of trees and removal of vegetation. ❖ Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. ❖ The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose ❖ The contractor shall build hardy structures around the trees for protection. ❖ The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 			
39.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> ❖ All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. ❖ Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. ❖ No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. ❖ Vehicles should be covered during transportation of cleared vegetation to and from the construction site. ❖ Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. ❖ Washing the vehicles should be conducted periodically to prevent carrying any invasive species ❖ The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> ❖ All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. ❖ The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.</p> <ul style="list-style-type: none"> ❖ The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 			
42.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint an Environmental and Social Safeguards Officer (ESSO) who is responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review environmental and social complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
44.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. ❖ It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer NBRO

45.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
46.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the Engineer for information. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA, /Consultant Engineer PRDA
47.	Environmental Enhancement/Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
48.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA, /Consultant Engineer PRDA
49.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Routine maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer

50. .	Replanting of trees	❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer
-------	----------------------------	--	---------------------	------------	----------------------------------

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	Owner of a commercial unit	Male	<ul style="list-style-type: none"> • The road gets inundated at several locations and water level goes to 11/2 feet high at settlements of estate laborers located in the middle of the road section • The culverts need to be repaired and replaced at the end of the road.
11.03.2021	Resident	Female	<ul style="list-style-type: none"> • Both men and women in the area work as estate laborers. • The estate workers in this area live here for long time.
12.03.2021	Grama Niladari - Galathura	Male	<ul style="list-style-type: none"> • There are tea and rubber lands in the project area and people work in these lands. • There are community-based organizations such as Framers organizations.
12.03.2021	Grama Niladari - Kahawatta	Female	<ul style="list-style-type: none"> • There are paddy and tea cultivations in the project area. • Only Sinhalese people live in this GN Division.

2.8. ESMP of SR08 – Devipahala - Deraniyagala Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development Project
(IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 8 – Devipahala - Deraniyagala Road (5.6km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background

Devipahala Deraniyagala Road

Road length: 5.60km

Coordinates: Starting Point: 6° 48.309'N, 80° 21.814'E
End Point: 6° 50.700'N, 80° 21.421'E

Location:

District: Ratnapura

EE Division: Ratnapura

DS Division: Kuruvita

GN Divisions: Kirigala, Wathuyaya, Devipahala, Endiriyanwala

1. Introduction

The Devipahala Deraniyagala road starts from a provincial road connected to Colombo - Ratnapura - Wellawaya – Batticaloa (A004) road and ends on the same road after traversing 5.60km. This road is currently under the custody of the Provincial Road Development Authority (PRDA), Sabaragamuwa. The surface of the road is damaged macadam. The road traverses along an undulating to hilly terrain. Elevation of the trace varies between 100m - 235m MSL. The proposed road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 5.6km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.2m, shoulder 0.5m (both sides), and drains as required. The estimated time for construction of the road is six (6) months.

3. Right of Way

There is no demarcation established at site laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW, as in some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average right-of-way (RoW) of the Devipahala – Deraniyagala road is around 5.5m and the average carriageway is 3.2m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA, Sabaragamuwa will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA, Sabaragamuwa will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

This road connects with access road to the waterfall “Bopath Ella”. Therefore, many foreign and local tourists use this road. There are tea, rubber, pepper, cinnamon, banana and paddy cultivations in the project area. Thus, the road development will facilitate the tourism and transportation of agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit o all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted) . The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Devipahala Deraniyagala Road will have a majority of reversible, small-medium scale environmental and impacts. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration while drainage improvement such construction of drains and culverts will result temporary environmental impacts. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:**
There are about 207 households and 35 shops located on either side of the road. The population is estimated at 920. A majority of the population is Sinhala Buddhists. There are also Tamil and Muslim families living in scattered sections of the road who are Islamic and Hindu by faith.
- **Land ownership:** There are titleholders, people having permits for their land and people living on estate lands along the road.
- **Livelihoods:** There are tea, rubber, pepper, cinnamon, banana and paddy cultivations and home gardens along the road. People are engaged in these agricultural activities. People are also engaged in wage labour, self-employment and government and private sector jobs.
- **Local organisations:** There are three Rural Development Societies, Farmer Societies, Elders' Societies, Welfare societies and Samurdhi societies
- **Community infrastructure and resources:** are schools, temples, community halls and shrines along the road as described in Table 1. During construction period, the access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location - GPS Coordinate		Road side	Distance from the RoW
Suwapiyasa Praja Padanama Hall	6°48'51.91"N	80°21'47.51"E	RHS	4m
Gangarama Temple SewaPiyasa Suwadiwi Medical Centre	6°48'51.86"N	80°21'47.48"E	RHS	Temple: 100m SewaPiyasa: 50 m Suwadiwi Medical Centre:60 m
RA / Sri Saranajothi Tissa School	6°49'8.88"N	80°21'43.58"E	LHS	5m
Community Hall and Pre School	6°49'21.28"N	80°21'39.09"E	LHS	7m
Temple	6°49'25.65"N	80°21'40.55"E	RHS	Entrance to the temple: 5m Cash box ("Pinpettiya"): 2m Temple: 7m
Gamidiriya Community hall	6°50'14.03"N	80°21'28.89"E	RHS	7m

On-going development projects: None

- **Visitors to the area:** This road is connected to the access road to “Bopath Ella” waterfall. Therefore, local and foreign visitors frequently visit the project area.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of PRDA (Sabaragamuwa).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		✓		The RoW is owned by PRDA (Sabaragamuwa). The current usage of land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other			✓	

Screening Questions	Not known	Yes	No	Remarks
encumbrances?				
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?			✓	
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There are schools, temples, community halls and shrines along the road as shown in Table 1.
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Kuruvita Police station which is 4.20km from the project site. Further, “MithuruPiyasa” ⁸ center is located in Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	

⁸ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 20 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is a possibility of employing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimate of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	No
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 20. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province

Sub-project: Devipahala - Deraniyagala Road (SR08)

Road Length: 5.6km

Location: District: Ratnapura
DS Division, Kuruwita

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		Permanent diversion will not be required. However temporary diversion will be needed at the new culvert at 1.3 and 5.2km and culverts to be reconstructed at 0.1, 0.6, 0.9, 3.05, 3.3, 3.32, 3.42 and 5.15km. Temporary diversion of waterway will be restored to its original condition soon after the rehabilitation of the structures at relevant locations. Temporary soil dumps and material storing at above locations will be avoided as much as possible.

			Soil erosion conservation measures such as silt traps, covering the material dumps will be practiced if materials are to be stored. Soil erosion management measures such as silt traps, slit fences shall be applied at the above waterways to minimize soil getting eroded to them.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Storing construction materials containing small/ fine particles in places which are not subjected to wash away by runoff and keeping temporary soil dumps avoiding near water bodies will minimize this impact. Storing and protecting construction materials such as cement, bitumen and other chemicals including any harmful substances in protected compartments/ enclosures and handling carefully to avoid spills, disposing waste containers and material only in approved locations will mitigate this impact. Providing adequate and appropriate facilities for labor camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		At following locations, boulders are found close to the RoW where rock blasting is necessary. 2.67km, 3.12km & 5.0km. Noise and vibration impacts

			will be generated due to most of field construction activities shall be maintained below the maximum permissible levels of the national standards. Special precaution will be applied at sensitive receptors as given in the Question 6 on the social screening checklist.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?		✓	
- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will reduce the need of labor camps.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding possibilities of water stagnation within the construction sites, keeping hygienic conditions in labor camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and PPE for laborers will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting		✓	

from traffic volume?			
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Devipahala Deraniyagala Road



Figure 1: Strating point of the road



Figure 2: Cooperative shop located at 1.240km on RHS of the road



Figure 3: School located at 1.800 km on LHS of the road

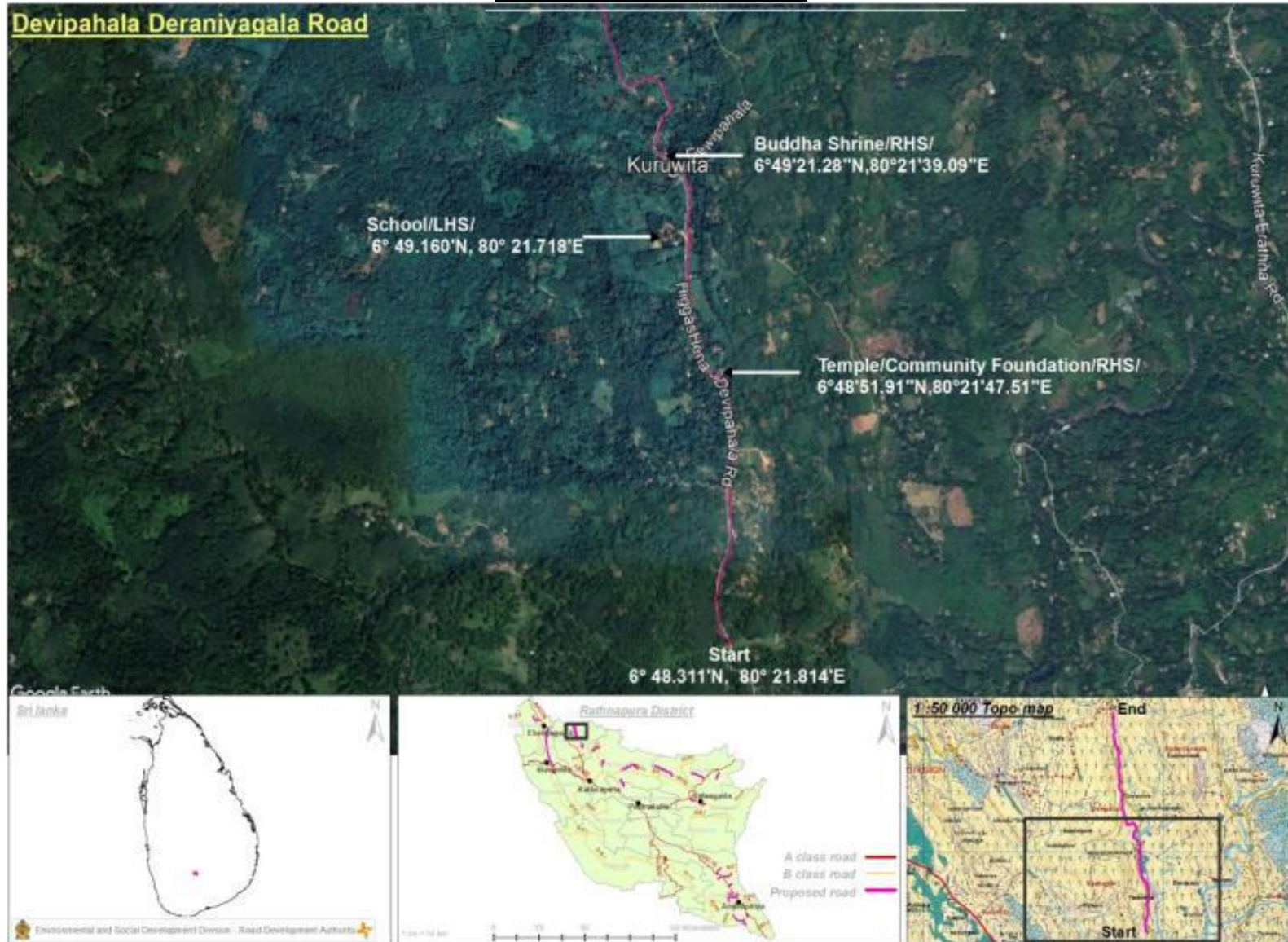


Figure 4: Temple located at 2.250 km on RHS of the road



Figure 5: End point of the road

Appendix 2 – Location Map



Devipahala Deraniyagala Road

End - 6°50'43.01"N
80°21'24.49"E

Community hall/RHS
6° 50.234'N, 80° 21.481'E



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Devipahala – Deraniyagala Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	<ul style="list-style-type: none"> • Section 11, 44 of ESMP • Any guidance to be issued by NBRO
Necessary safety measures such as speed barriers, pedestrian crossings, sign boards etc... should be introduced to the school at 1.8km.	Section 27, 29 and 36 of ESMP.
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of Devipahala – Deraniyagala Road (SR08)

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Kuruvita). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation.</p> <ul style="list-style-type: none"> ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence only upon the written approval of the Engineer and then from the relevant local authority ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) ❖ Provision shall be made for domestic solid waste disposal in 	Engineering Cost	Contractor,PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<p>acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force.</p> <ul style="list-style-type: none"> ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority(Water Resources Board, NW&DB, Department of Irrigation, CBO) will not be allowed. ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complaints and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use of lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT)to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the of the Irrigation Department, Provincial Irrigation Department and Agrarian Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO) ❖ Existing slopes should not be disturbed to extent possible ❖ Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO

12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation should be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, RDA, PRDA (Sabaragamuwa)
13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, PRDA (Sabaragamuwa)
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> • Contractor shall identify locations where permanent access is blocked for construction. • The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. • In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. • If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ The contractor shall identify the sites for disposal of material cleared. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 			
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>as identified by the Engineer in a layer of thickness of 75mm – 150mm.</p> <ul style="list-style-type: none"> ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 			
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Any parties vulnerable for excessive dust residing along the road such as school (1.8km), medical center, houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Mud patches caused by material transporting vehicles in the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>access road should be immediately cleaned</p> <ul style="list-style-type: none"> ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m from the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 			
20.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority. ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA, GSMB

21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA,GSMB
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways. Where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Erosion control measures as given in Annex III should be applied where feasible. 			
23.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ Any parties vulnerable for excessive noise residing along the road such as school (1.8km), temple (2.25km), medical center, houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. However noise level generated at the school at 1.8km should be controlled during schooling hours. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA

		<p>maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants).</p> <ul style="list-style-type: none"> ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
24.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
25.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Any parties vulnerable for excessive vibration located along the road such as school (1.8km), temple (2.25km), medical center, houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of excavation, compaction, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall compensate or repair any damaged occurred to third party properly as result of his activities as agreed with the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

		<p>affected party and engineer.</p> <ul style="list-style-type: none"> ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 			
26.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance sites shall be located away from rivers, at least 200m away, water ways and water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Waste water shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary)</p> <ul style="list-style-type: none"> ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>any other equipment considered necessary.</p> <ul style="list-style-type: none"> ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. 			
29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
30.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF

		<p>to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.</p> <ul style="list-style-type: none"> ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 			
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor's site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant EngineerMoH
32.	Prevention of Vector borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
33.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfort ability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 			
34.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers’ grievances and complaint/ suggestion boxes can be placed at the supervision consultant’s office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

35.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with the relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
36.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ Safe and dedicated access should be provided for the school at 1.8km and for the devotees of the temple at 2.25km. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to 	Engineering	Contractor	PMU/PIU/RDA/Consultant

	disruption to Flora	<p>the flora and their habitats is minimized.</p> <ul style="list-style-type: none"> • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 	Cost		Engineer
39.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. • No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>borrow material.</p> <ul style="list-style-type: none"> • Washing the vehicles should be conducted periodically to prevent carrying any invasive species • The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 			
41.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> • All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. • The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. • The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/social related matters (Environmental and Social Safeguards Officer (ESSO)). All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review environmental and social complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
44.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer NBRO

		<p>trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains</p> <ul style="list-style-type: none"> ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. ❖ It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 			
45.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
46.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA./Consultant EngineerPRDA

47.	Environmental Enhancement/ Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turbing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
48.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA,/Consultant EngineerPRDA
49.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
50.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Gender (M/F)	
11.03.2021	Resident	Male	<ul style="list-style-type: none"> • Road is damaged and need to be developed. • This road is an access road to Bopath Ella waterfall
11.03.2021	Rod user	Male	<ul style="list-style-type: none"> • Main livelihood of the area is agriculture. • This road has a public transport service.
11.03.2021	Small shop owner	Male	<ul style="list-style-type: none"> • The road development is good. • Get an income from selling tea to people who visit waterfall. • This is our only income and I also sell betel and king coconut.
12.03.2021	Women Development Officer, Kuruvita DS Division	Female	<ul style="list-style-type: none"> • Many women in project area do not work. So, we encourage them to engage in self-employment. • The road development is good.
11.03.2021	Grama Niladari, Devipahala	Male	<ul style="list-style-type: none"> • This road is used by local and foreign tourists to go to Bopath Ella. • This road development will facilitate tourists and residents in the area.

2.9. ESMP of SR09 – Erathna - Thundola Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development Project
(IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 9 – Erathna – Thundola Road (2.48km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background

Erathna Thundola Road

Length: 2.48km

Coordinates: Starting Point: 6° 47.013'N, 80° 22.543'E
End Point: 6° 47.740'N, 80° 22.555'E

Location:

District: Ratnapura

DS Division: Kuruvita, Ratnapura

EE Division: Ratnapura

GN Divisions: Ekneligoda – North, Walandura

1. Introduction

The Erathna Thundola Road starts from Kuruvita – Erathna Road and traverses a half a circle and connects to the same road. The road is under the custody of Kuruvita Pradeshiya Sabha (local authority). The road runs along flat to undulating terrain. Elevation of the trace varies between 38m - 167m MSL. The existing road surface condition is damaged macadam, and a few sections with concrete. The road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.8km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), drain 0.7m (one side). The construction period for this road is estimated as four (4) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Erathna Thundola road is around 5m and the average carriageway is 3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. Kuruvita Pradeshiya Sabah (local authority) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-

Aways...etc. Further, a representative from Kuruvita Pradeshiya Sabah (local authority) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

This road serves as a bypass road to Kuruvita – Erathna Road. There are tea and rubber cultivations in the area. The road development will facilitate the transportation of agricultural produce and private and government sector employees to reach their working places easily.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 4 for persons contacted). The technical details were obtained from the Project Management Unit of the Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Erathna Thundola Road will have a majority of reversible, small-medium scale environmental and social impacts. The main social impact will be possible economic displacement to the small shop located within the existing ROW. The other impacts are temporary loss of access to residents, common properties and the impact of dust, noise and vibration and temporary impacts to waterways due to reconstruction of culverts and drains. These impacts are specifically limited to the construction phase of the project that can be managed by site specific mitigation measures and preparation of ARAP, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** There are about 93 households and 07 small shops located on either side of the road. The population is estimated at 380. The majority of the population are Sinhalese. There are also Tamil and Muslim families living in scattered sections. The majority of the people are Buddhists by religion while others are Islamic and Hindu.
- **Land ownership:** There is a small shop located in 2+750km (RHS) of the existing RoW. However, the shop will not be affected by civil works (see Annex 3 for details). The other residents in the area are titleholders, permit holders and people living on estate lands.
- **Livelihoods:** There is tea, rubber plantations and home gardens along the road. Many people are engaged in day today labour work in these plantations. Others are involved in self-employment, and government and private sector jobs. Private sector employment is mainly in the garment factories.
- **Local organisations:** There are Rural Development Societies, Farmers Societies, Elders' Societies and Samurdhi societies in the project area.
- **Community infrastructure and resources:** There is a Buddha shrine, a community hall and a volleyball ground as shown in Table 1. During construction period, access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after the construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location - GPS Coordinate		Road side	Distance from RoW
Buddha Shrine	6°47'0.68"N	80°22'32.52"E	RHS	Stairs to the Buddha Shrine: 05m Buddha Shrine: 3m
Community hall and volleyball Ground	6°47'1.78"N	80°22'56.18"E	LHS	8m

On-going development projects: None

- **Visitors to the area:** People come to the area for trading activities connected with tea and rubber.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Kuruvita Pradeshiya Sabha (local authority).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		The RoW is owned by Kuruvita Pradeshiya Sabah (local authority). The current usage of the land is road. There is a small shop located in the existing RoW.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				

Screening Questions	Not known	Yes	No	Remarks
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)		✓		There is a small shop located in the existing RoW. However, shop will not be affected. Refer Appendix 3 for details.
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		There are no affected people as the development is carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a Buddha shrine, a community hall and a volleyball ground (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Kuruvita Police station which is 1.68km away from the

Screening Questions	Not known	Yes	No	Remarks
				project site. Further, “MithuruPiyasa” ⁹ center is located in Kuruwita hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of employing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		

⁹ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: Erathna - Thundola Road (SR09)
Road Length: 2.48km
Location: District: Ratnapura
 DS Division: Kuruwita

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		Permanent alteration will not be required. Reconstruction of culverts at 0.43, 0.53, 1.6, 1.7, 1.97, 2.08, 2.28, 2.4 and 2.8 will require temporary diversion of streams. Waterways which are temporally diverted will be restored to its original condition and water supply to downstream will be continued. Avoiding dumping unsuitable and construction material near water bodies and application of soil conservation measures to avoid siltation of water

			bodies will minimize these impacts.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Storing construction materials containing small/ fine particles in places which are not subjected to wash away by runoff and keeping temporary soil dumps avoiding water bodies will minimize this impact. Storing and protecting construction materials such as cement, bitumen and other chemicals including any harmful substances in protected compartments/ enclosures and handling carefully to avoid spills, disposing waste containers and material only in approved locations will mitigate this impact. Labor camps will be established only after approval from local authority and their recommendations will be practiced.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Rock blasting is not necessary along the road. Noise and vibration levels generated due to most of field construction activities will be maintained below maximum permissible levels of the national standards while taking special precautions at sensitive receptors as given in the Question 6 of the social screening checklist.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to	✓		Settlements are located close

inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?			to the road around 0.0 – 0.1km & 2.8km. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards and avoiding night time construction activities.
- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will reduce the need of labour camps.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding possibilities of water stagnation within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic material and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and PPE for laborers will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 3: Information on Encroachers/Squatters

Appendix 1 -- Photographs of Erathna – Thundola Road



Figure 1:Strating point of the road



Figure 2: Road along the home gardens



Figure 3: Death Donation Society hall and volleyball court located at 1.375 km on the RHS of the road



Figure 4: A squatter observed at 2.750 km on RHS of the road

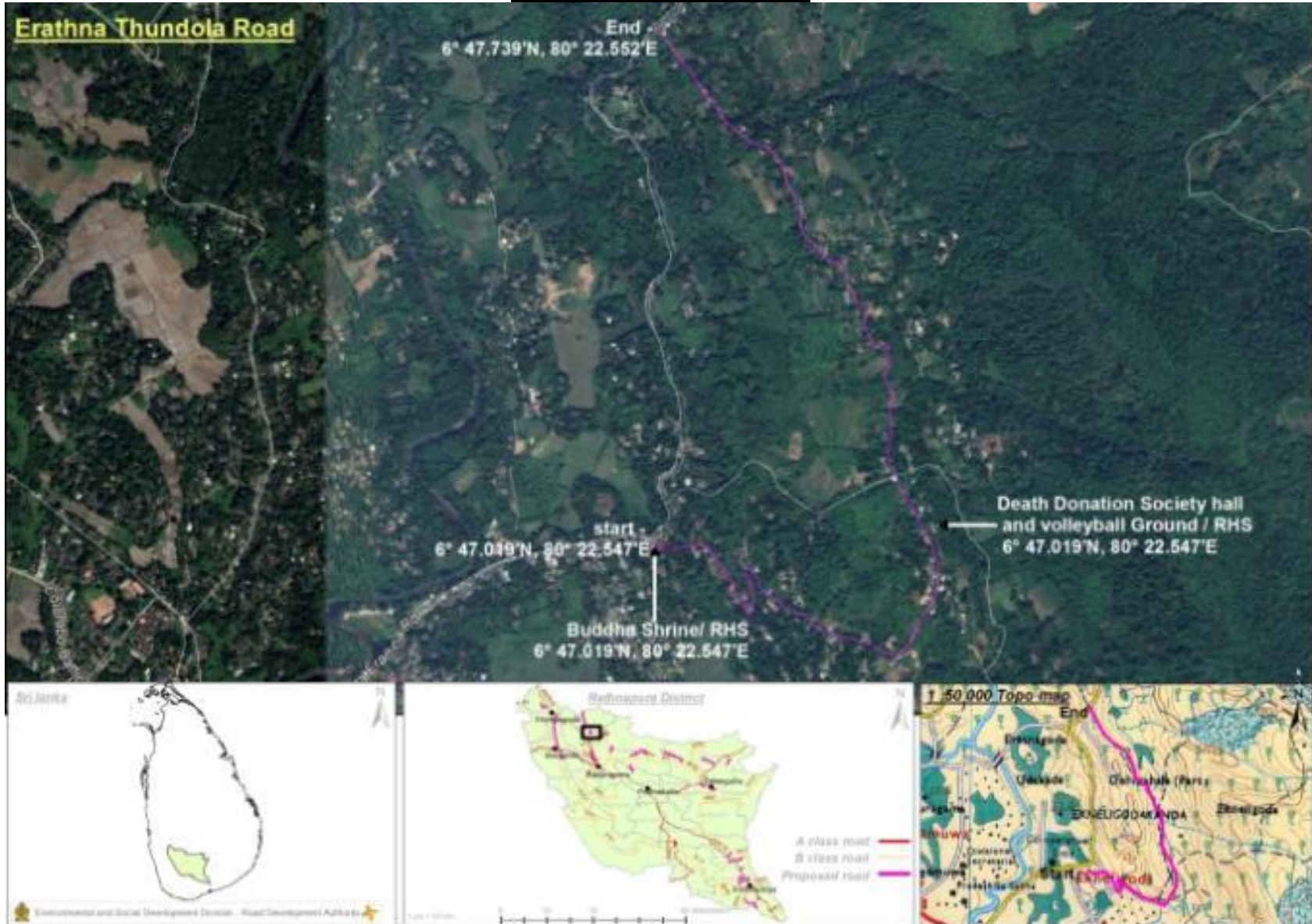


Figure 5: Road along the agricultural lands




Figure 6:End point of the road

Appendix 2 – Location Map



Appendix 3: Information on Encroachers/squatters within the RoW

Photo	Coordinate	Distance to the carriageway	Description	Impact and mitigation
	<p>6°47'37.73"N 80°22'37.94"E</p>	<p>2m from the edge of the carriage way</p>	<p>Owner of the small shop is Miss. N.G. Sumanawathi. She sells king coconut, toffee and biscuits. Her main income is tea plucking. Shop is an additional income for her. Her monthly income is about Rs. 10,000. There are 04 family members in her family. She is doing this business for 02 years.</p>	<p>The existing RoW of the road is 5m. The proposed improvements to the road include carriageway 3m, shoulder 0.5m (both sides) and drain 0.7m (one side). Therefore, the shop will not be affected. However, there will be temporary impacts such as dust, noise, vibration and disturbance to access during construction. These temporary impacts will be mitigated through regular sprinkling of water and by managing noise and vibration levels generated due to civil works within the particular standards. Further, The construction of the road at this location will be expedited to minimize the temporary impacts.</p>

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Erathna - Thundola Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Side drains and cross drains directed to streams are recommended to have proper silt control measures to avoid siltation of the streams.	Section 10,15,22,42 of ESMP
A small shop is located on the existing ROW at right side of 2.750km. If the lottery stall needs to be relocated, consult social experts of the project prior to final design.	ARAP will provide guidance for relocation
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 09 Erathna - Thundola Road

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPARATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Kuruwita). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation.</p> <ul style="list-style-type: none"> ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence only upon the written approval of the Engineer and then from the relevant local authority ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) ❖ Provision shall be made for domestic solid waste disposal in 	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<p>acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force.</p> <ul style="list-style-type: none"> ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority(Water Resources Board, NW&DB, Department of Irrigation, CBO) ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB,NW&DB, SLT
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation Department, Provincial Irrigation Department and Agrarian Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI

11.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead always in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Kuruwita PS
12.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Kuruwita PS
13.	Commercial units located within the existing ROW (Preparation and Implementation of ARAP)	<ul style="list-style-type: none"> ❖ In case the small shop located within the ROW at 0.750km on LHS is affected, the preparation of the ARAP and obtaining the WB approval is required prior to the commencement of civil works. ❖ The civil work can commence only after the relocation of the small shop to an alternate location and (if required) payment of due compensation. ❖ The procedure to be followed in this regard will be included in the ARAP and contractor should assist the PMU in the implementation of the ARAP 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Kuruwita PS

14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Pradeshiyasabha, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>requirements.</p> <ul style="list-style-type: none"> ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 			
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>or by the use of other anchoring systems.</p> <ul style="list-style-type: none"> ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 			
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Any parties vulnerable for excessive dust residing along the road such as houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
20.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA, GSMB

		<ul style="list-style-type: none"> ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 			
21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA,GSMB
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Silt traps will be constructed to avoid siltation into the water ways. Where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Erosion control measures as given in Annex III should be applied where feasible. 			
--	--	---	--	--	--

23.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ Any parties vulnerable for excessive noise residing along the road such as houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA
24.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer

		<ul style="list-style-type: none"> ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 			
25.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Any parties vulnerable for excessive vibration residing along the road such as houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall compensate or repair any damaged occurred to third party properly as result of his activities as agreed with the affected party and engineer. ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB
26.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA

		<p>to meet the relevant standards before discharging to the environment.</p> <ul style="list-style-type: none"> ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 			
27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health 	Engineering	Contractor	PMU/PIU/RDA/Consultant

		<p>Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract.</p> <ul style="list-style-type: none"> ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. 	Cost		Engineer
29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 			
30.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer MoH
32.	Prevention of Vector	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of 	Engineering	Contractor	PMU/PIU/RDA/Consultant

	borne Diseases	<p>mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.</p> <ul style="list-style-type: none"> ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Cost		Engineer, MoH
33.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfort ability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		<ul style="list-style-type: none"> ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 			
35.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with the relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
36.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction including access of houses, public properties and places of worship. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>vibrations associated with the civil works and will take all requisite measures to ensure so.</p> <ul style="list-style-type: none"> ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 			
38.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
39.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

40.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> • No solid or liquid waste should be dumped into natural habitats. ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. • Washing the vehicles should be conducted periodically to prevent carrying any invasive species • The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> • All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. • The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. • The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters Environmental and Social Safeguards Officer (ESSO)). All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and 			

		<p>review complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.</p> <ul style="list-style-type: none"> ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
44.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
45.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA,/Consultant Engineer PRDA
46.	Environmental Enhancement/ Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA

47.	Road furnishing on safety.	❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	Engineering Cost	Contractor	RDA,/Consultant Engineer PRDA
48.	Hydrology and drainage	❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
49.	Replanting of trees	❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer
50.	Commercial units located within the existing ROW (Post monitoring of ARAP)	❖ PMU will carry out consultations with owners of affected shops and discuss about their permanent relocation. ❖ The shop owners will be linked with relevant local authorities to (if necessary) for further assistance.		PMU/PIU	PMU/PIU/RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	GramaNiladari — Ekneligoda	Female	<ul style="list-style-type: none"> • There are tea and rubber cultivations. • People engage in day today labor activities in these cultivations. • Majority of population is Sinhalese.
11.03.2021	Squatter	Female	<ul style="list-style-type: none"> • The main income is tea plucking. • Also operate this small shop when not going for tea plucking. • Derive an income by selling king coconuts in the shop.
11.03.2021	Motor Mechanic	Male	<ul style="list-style-type: none"> • This road is damaged and its difficult for vehicle users. • Around 500m section of the road is in a dilapidated condition and villagers informed the authorities to construct at least that section.
11.03.2011	Road User	Female	<ul style="list-style-type: none"> • People in the area work in the garment factory. • The vehicles that transport garment workers do not come to this area as road is damaged. People must walk to the main road because of that. • The lorries that transport tea also use this road.

2.10. ESMP of SR 10 – Guruluwana - Ekneligoda Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development Project
(IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 10 – Guruluwana – Ekneligoda Road (3.60km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background

Guruluwana Eknaligoda Road

Road length: 3.60km

Coordinates: Starting Point : 6° 46.973'N, 80° 26.058'E

End point : 6° 46.357'N, 80° 24.638'E

Location:

District: Ratnapura

DS Division: Ratnapura

EE Division: Ratnapura

GN Divisions: Guruluwana, Ketawala, Gilimale North

1. Introduction

Guruluwana Eknaligoda Road starts from Malwala – Carney (B265) road and traverses for 3.60km. The road is under the custody of Provincial Road Development Authority (PRDA), Sabaragamuwa. The surface of the road is damaged macadam. The Road traverses along a hilly terrain and the elevation of the trace varies between 225m - 283m MSL. The proposed road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 3.6km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.3m, shoulder 0.5m (both sides), and a drain 0.7m (one side). The construction period for this road is estimated as five (5) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Guruluwana – Eknaligoda road is around 5m and the average carriageway is 3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA, Sabaragamuwa will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a

representative from PRDA (Sabaragamuwa) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The road surface is damaged, and the road development is important. There is tea, cinnamon, rubber and paddy cultivation in the area. The road development will facilitate the transportation of these agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Guruluwana Eknaligoda Road will have a majority of reversible, small-medium scale environmental and social impacts. The impacts are temporary diversion of streams for culvert reconstruction, temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the construction phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements: There are about 110 households and 20 small shops located on either side of the road. The population is around 494. The majority of the population are Sinhalese. There are Tamil families as well. They are Buddhists and Hindus by faith.

Land ownership: There are no squatters along the road. There are private and government lands.

- **Livelihoods:** There are tea, cinnamon, rubber and paddy cultivations and home gardens along the road. People are engaged in day today labour work in these cultivations and there are also people who are self-employed and those in government and private sector jobs.
- **Local organisations:** There are Rural Development Societies, Farmer Societies, Elders' Societies, Samurdhi Societies and Sanasa societies functioning in the area.
- **Community infrastructure and resources:** There is a temple, a bank, a police station, a shrine and Bo tree, a school and a service centre of the local/village level administrators along the road as shown in Table 1. During construction period, the access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location - GPS Coordinate		Road side	Distance from the RoW
Sri Lanka Police - Guruluwana	6°47'0.10"N	80°25'55.29"E	RHS	2m
Sanasa Bank	6°47'0.10"N	80°25'55.29"E	LHS	20m
Sri Priyadarsanaramaya Temple	6°46'51.26"N	80°25'42.71"E	LHS	2m.
School (Ketawala)	6°46'42.84"N	80°25'18.38"E	RHS	5m
Service Centre (Sewapiyasa) of the local level administrators	6°46'43.40"N	80°25'11.25"E	LHS	4m
Bo Tree and Buddha Shrine	6°46'24.74"N	80°24'54.67"E	LHS	3m

On-going development projects: None

- **Visitors to the area:** Traders frequently come to buy the agricultural produce in the area.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of PRDA (Sabaragamuwa).
Is land acquisition likely to be necessary?			✓	RoW
Is the ownership status and current usage of land known?		✓		The RoW is owned by PRDA (Sabaragamuwa). The current usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works?			✓	

Screening Questions	Not known	Yes	No	Remarks
(Is the land free of squatter/informal settlements or other encumbrances?)				
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing ROW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a temple, a bank, a police station, a shrine and Bo tree, a school and a service centre along the road (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Guruluwana police station located close to the site.

Screening Questions	Not known	Yes	No	Remarks
				Further, “ <i>Mithuru Piyasa</i> ” ¹⁰ center is located in the Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of employing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-		✓		

¹⁰Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
economic, cultural, religious or demographic background?				
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province

Sub-project: Guruluwana to Ekneligoda road (SR10)

Road Length: 3.6km

Location: District: Rathnapura

DS Division: Rathnapura

GN Divisions: Guruluwana, Ketawala, Gilimale north

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the			

following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		Culverts will be reconstructed at 0.18, 0.32, 0.5, 0.59, 1.51, 1.78, 2.33, 2.72, 3.1 and 3.5km and streams will be temporary altered. Waterways will be restored to its original condition if stream will be diverted for rehabilitation of structures. Unsuitable material and construction materials will be properly handled to avoid erosion and soil erosion control measures will be applied at every water body to minimize soil erosion impacts.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Storing construction materials containing small/ fine particles in places which are not subjected to wash away by runoff and keeping temporary soil dumps avoiding water bodies will minimize this impact. Storing and protecting construction materials such as cement, bitumen and other chemicals including any harmful substances in

			protected compartments/enclosures and handling carefully to avoid spills, disposing waste containers and material only in approved locations will mitigate this impact. Providing adequate and appropriate facilities for labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Rock blasting not necessary along the road. Noise and vibration levels generated due to civil works will be managed within the permissible level as specified in the national standards. Special precautions will be taken at sensitive receptors as given in the Question 6 on the social screening checklist.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Settlements are located close to the road around 0.1km, 0.5km & 3.6km. Regular sprinkling of water to suppress dust and avoiding construction activities during night time while providing special attention to settlement areas.

- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will reduce the need of the labor camps.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding water collection areas within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic material and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and providing PPE for labor will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 -Photographs of Guruluwana – Ekneligoda Road



Figure 1: Starting point of the road



Figure 2: Temple located at 0.800km on LHS of the road



Figure 3: Bridge located at 1.350km of the road

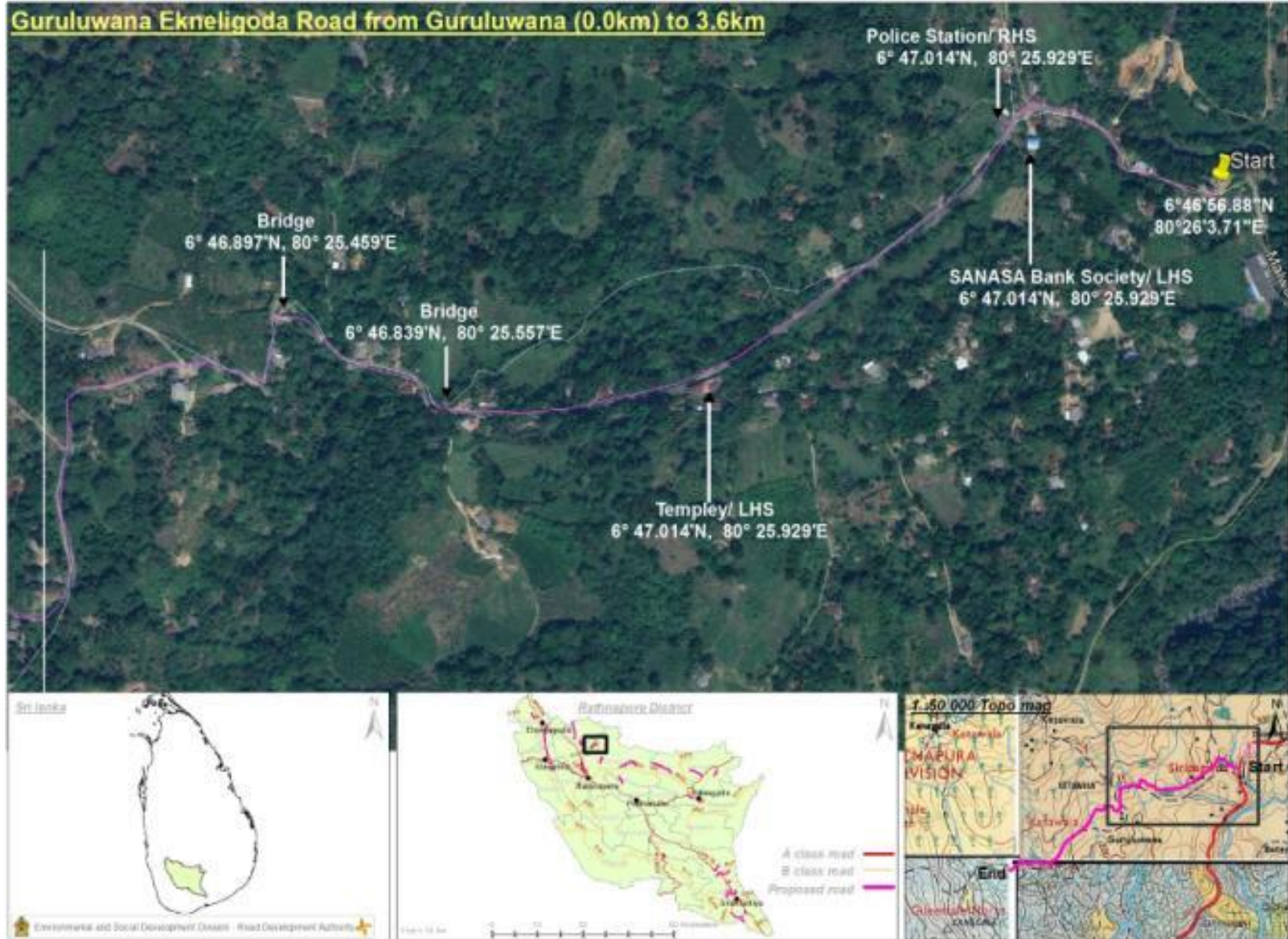


Figure 4: School located at 1.900km on RHS of the road



Figure 5: End point of the road

Appendix 2 – Location Map





Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Guruluwana -Ekneligoda Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Alignment of the road should ensure that the temple at 0.8km shall not be encroached. And it is recommended to improve the access to the temple with the consultation of the chief priest.	
It is recommended to improve the road safety at the school located at 1.9km by introducing pedestrian crossings, speed barriers, sign boards etc...	<ul style="list-style-type: none"> • Section 27 and 36 of ESMP
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	<ul style="list-style-type: none"> • Section 11, 42 of ESMP • Any guidance to be issued by NBRO
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 10 - Guruluwana - Ekneligoda Road

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Rathnapura). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>public areas will be explored with the help of DoF, DS and CBOs of the area</p> <ul style="list-style-type: none"> ○ The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence only upon the written approval of the Engineer and then from the relevant local authority ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is 	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<p>available for drinking, cooking and washing.</p> <ul style="list-style-type: none"> ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB

5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority(Water Resources Board, NW&DB, Department of Irrigation, CBO) ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer

8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB,NW&DB, SLT

10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation Department, Provincial Irrigation Department and Agrarian Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO). ❖ Existing slopes should not be disturbed to extent possible ❖ Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO, NRMC
12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead always in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, PRDA (Sabaragamuwa)

13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, (Sabaragamuwa) PRDA
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>dumping</p> <ul style="list-style-type: none"> ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. <ul style="list-style-type: none"> ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 			
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Any parties vulnerable for excessive dust located along the road such as school (1.9km), temple (0.8km), medical center, houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods.</p> <ul style="list-style-type: none"> ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 			
20.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA, GSMB

		temporary works and borrow pits.			
21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA,GSMB
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Refer Annex III. 			
23.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ Any parties vulnerable for excessive noise residing along the road such as school (1.9km), temple (1.9km), medical center, houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA

		<p>Special approval should be obtained from CEA for night time work through PIU.</p> <ul style="list-style-type: none"> ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
24.	Vehicular noise at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
25.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Any parties vulnerable for excessive vibration residing along the road such as temple at 0.8km, school, medical center, houses located adjacent to the ROW etc... should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of excavation, blasting activity, the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

		<p>Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.</p> <ul style="list-style-type: none"> ❖ Contractor shall compensate or repair any damaged occurred to third party properly as result of his activities as agreed with the affected party and engineer. ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 			
26.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Waste water shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA

27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>who are engaged in welding works.</p> <ul style="list-style-type: none"> ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. 			
29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
30.	Operation of labor	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations 	Engineering	Contractor	PMU/PIU/RDA/Consultant

	camps	<p>issued by the CEA/Local Authority (LA). Construction of laborer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations</p> <ul style="list-style-type: none"> ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Cost		Engineer, CEA, LA, DoF
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer MoH
32.	Prevention of Vector borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		<p>shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.</p> <ul style="list-style-type: none"> ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 			
33.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfort ability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		<ul style="list-style-type: none"> ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 			
35.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with the relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
36.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ Safe access to the temple at 0.8km should be ensured for devotees. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so.</p> <ul style="list-style-type: none"> ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 			
38.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
39.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed.</p> <ul style="list-style-type: none"> No solid or liquid waste should be dumped into natural habitats. 			
40.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. • Washing the vehicles should be conducted periodically to prevent carrying any invasive species • The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> • All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. • The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. • The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

42.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters Environmental and Social Safeguards Officer (ESSO)). All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
44.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. ❖ It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer NBRO
45.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 			
POST CONSTRUCTION					
46.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA./Consultant Engineer PRDA
47.	Environmental Enhancement/Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
48.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA./Consultant Engineer PRDA

49.	Hydrology and drainage	❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
50.	Replanting of trees	❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
12.03.2011	Grama Niladari- Ketawala	Male	<ul style="list-style-type: none">• There are tea rubber, cinnamon and paddy cultivations.• The proposed development of the road is good.
12.03.2011	Grama Niladari- Gilimale North	Male	<ul style="list-style-type: none">• Although there are big trees in this area, it is not a protected reserve• Land is private land and some people own 5-8 acres.
11.03.2011	Road user	Male	<ul style="list-style-type: none">• Tea cultivation is the main agricultural activity.• This road is used for transportation of tea leaves and it is good to develop the road.
11.03.2011	Resident	Female	<ul style="list-style-type: none">• All people living in this area are titleholders of their respective lands.• People also sell jaggery to people who visit Adam's Peak.

2.11. ESMP of SR 11 – Illukwatta Rathganga Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 11 – Illukwatta Rathganga Road (2.82km)**

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background

Illukwatta - Rathgaga Road

Road length: 2.82km

Coordinates: Starting Point: 6° 43.574'N, 80° 26.287'E
End Point : 6° 44.493'N, 80° 26.741'E

Location:District: Ratnapura
DS Division: Ratnapura
EE Division: Ratnapura
GN Divisions: Gileemale South, Durekkanda

1. Introduction

The Illukwatta Rathganga Road starts from Mallawa – Carney (B265) Road and traverse for 2.82km provide access to Rathgama village. This road is under the custody of Ratnapura Pradeshiya Sabha (local authority). The surface of the road is damaged macadam. The road is located within a low terrain area. Elevation of the trace varies between 35 – 61m MSL. Rath Ganga (a stream) is crossed by the road at 0.12 – 0.16km. Road is prone to flood at this location due to spilling of Rath Ganga during heavy rainfall events which lasts for more than 2 days. Road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation:

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will be carried out within the existing Right of Way (RoW) for 2.82 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), and drains as required. The construction period is estimated as three (3) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Illukwatta – Rathganga road is around 4.5m and the average carriageway is 3.5m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Ratnapura Pradeshiya Sabah (local authority) will provide coordination support by attending to any public

requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Ratnapura Pradeshiya Sabah (local authority) will function as a member of the Grievance Redress Committee as a member.

5. Community Response and Perceived Benefits

It is important to develop this road as the road is in a dilapidated condition. This road is used by pilgrims to reach Rathgama temple (Punchi Dambadiwa). There are also tea cultivations in the area. Thus, road development is important to facilitate the residents, pilgrims and transportation of tea.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Illukwatta Rathgama Road will have a majority of reversible, small-medium scale environmental impacts. The main environmental and social impacts will be flood risks at the starting point, temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:**

There are about 33 households and about 6 business places located along the road. The population along the road is around 148. They are Sinhala Buddhists.

Land ownership: There are private and government lands along the road.

- **Livelihoods:** People in the project area engage in tea cultivation and gem mining. Also, some are in public and private sector jobs. (
- **Local organisations:** There is a farmer organisation within the Madagama area.
- **Community infrastructure and resources:** There is a preschool as shown in Table 1. During construction period, access to this place will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location - GPS Coordinate		Road side	Distance from the RoW
Pre - School	N 6°44'10.25"	E080°26'28.58"	RHS	20m

n

- **-going development projects:** None
- **Visitors to the area:** This road is used by pilgrims to reach Rathgama temple (Punchi Dambadiwa). Thus, the area has frequent visitors from outside. There are also gem mining and tea cultivations. Therefore, traders also arrive for commercial purposes.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of

Screening Questions	Not known	Yes	No	Remarks
				such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Ratnapura Pradeshiya Sabha (local authority).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		The RoW is owned by Ratnapura Pradeshiya Sabha (Local authority). The current usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	

Screening Questions	Not known	Yes	No	Remarks
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a preschool (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Siripagama police station which is 9km away from the project site. Further, “MithuruPiyasa” ¹¹ center is located in Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				

¹¹ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce? Will there be workers brought in from outside the project area?		✓		Priority will be given to secure labor from the local community. There is possibility of employing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
District: Rathnapura
Sub-project: Ilukwatta - Rathgaga Road (SR11)
Road Length: 2.82km
Location: District: Rathnapura
 DS Division: Rathnapura
 GN Divisions: Durekkanda, Gilimale South

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permanent alteration is required. Stream at 2.56km will be temporary altered for reconstruction of the culvert. Water flow at this location will be continued to downstream and restored to original condition once the requirement is over. Erosion control measures such as silt traps and silt fences will be applied at streams crossings;

			Rath ganga 0.12 – 0.16km, 0.74 & 2.04km in order to minimize siltation.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Surface water quality of streams above mentioned will be deteriorated due to surface runoff contaminated with silt. Appropriate measures shall be taken to avoid contamination of surface runoff by silt and other chemicals used for construction and wastewater from workers camps. Providing adequate and appropriate facilities for labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Noise and ground vibration will be increased due to compaction and heavy vehicle movement. All work will be within regulated noise and vibration levels and suitable measures to be taken to reduce ground vibration and noise accordingly. Blasting will not be necessary along the road.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper	✓		Special attention required to settlements located close to the road area from 0.00 to

respiratory problems and stress?			0.30km. Regular sprinkling of water to suppress dust and avoiding construction activities during night time will mitigate these impacts.
- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and sanitary facilities should be increased to avoid common diseases such as diarrhea.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding water collection areas within the construction sites, keeping hygienic conditions in labor camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lams, retaining walls and provision of PPE for lobores will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	Regular vehicle maintenance, good housekeeping of vehicle yards, deployed of qualified mechanical supervisors will be recommended to avoid risk of contamination of pollutants such as oil, grease and fuel.

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1: Photographs of Ilukwatta - Rathgaga road



Figure 1: Starting point of the road



Figure 2: River crossing at 0.1km

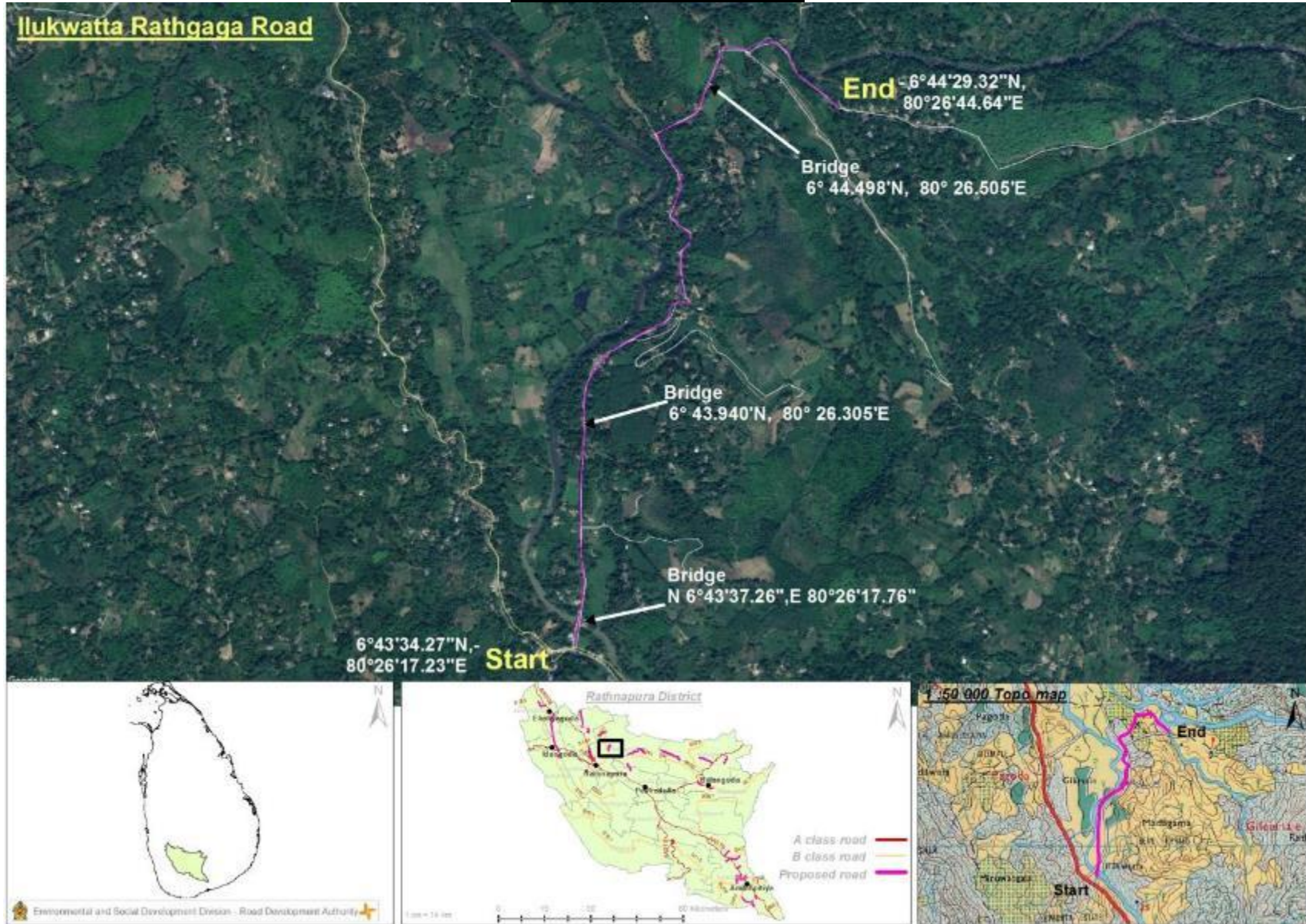


Figure 3: Along the road



Figure 4: End point of the road

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Illukwatta Rathganga Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
It is recommended to incorporate necessary measures to withstand the road against flood conditions occur around the starting point to ch 2+100 such as concreting the road surface, increase the span number or openings of the existing culvert/small bridges (Ch 2+040) and improving the vertical alignment of the road etc.	<ul style="list-style-type: none"> • Section 10 of ESMP • Bridge design manual of RDA
Measures to be taken to avoid wash off the road surface and hard shoulders from starting point to end point due to highly flood sensitive area.	<ul style="list-style-type: none"> • Measures to be incorporated to detail design
Side drains and drains directed to Rathganga at ch 0+120-0+165 km are recommended to have silt traps with adequate capacity and other silt control measures.	<ul style="list-style-type: none"> • Section 22 of ESMP
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of Illukwatta Rathgaga Road (SR11)

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Rathnapura). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation.</p> <ul style="list-style-type: none"> ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence after receiving the written approval of the Engineer as well as Local Authority. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) ❖ Provision shall be made for domestic solid waste disposal in 	Engineering Cost	Contractor,PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<p>acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force.</p> <ul style="list-style-type: none"> ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material are sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, Department of Irrigation, CBO) will not be allowed. ❖ Permission for the extraction of water should be obtained prior 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		to the commencement of the project, from the relevant authority.			
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer

8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign lease agreement with the land owners and the contractor. ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT)to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB,NW&DB, SLT

10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Prior approval should be taken for canal diversion from the relevant government organization and farmer's organizations. ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO) ❖ Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO
12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, leader ways in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort should be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Ratnapura PS

14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> • Contractor shall identify locations where permanent access is blocked for construction. • The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. • In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. • If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. <p>❖</p>	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ The contractor shall identify the sites for disposal of material cleared. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ During the site clearance and disposal of debris, contractor will take to full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in non-residential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies (stream, etc..). ○ Avoid disposal on productive/agricultural land. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ○ should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA Pradeshiya Shabha, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 			
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

	materials	<ul style="list-style-type: none"> ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the site. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 			
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Any parties vulnerable for excessive dust residing along the road especially within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m from the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
20.	Management of Self Operated Borrow	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental 	Engineering	Contractor	PMU/PIU/RDA,/Consultant

	Sites	<p>requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.</p> <ul style="list-style-type: none"> ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Please refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 	Cost		Engineer CEA, GSMB
21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA,GSMB

		<p>ongoing disputes with community.</p> <ul style="list-style-type: none"> ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 			
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways. where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities, excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>erosion, sedimentation and water pollution to the satisfaction of the engineer.</p> <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. <p>❖ Please refer Annex III</p>			
23.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals and residential areas from 6:00PM to 6:00AM on the following day). ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ Any parties vulnerable for excessive noise levels residing along the road especially at schools, temple, medical centers and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA
24.	Vehicular noise pollution at residential / sensitive	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

	receptors	<p>commercial / sensitive areas.</p> <ul style="list-style-type: none"> ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 			
25.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Any parties vulnerable for excessive vibration levels residing along the road especially at school, temple and within residential areas located very close to the ROW should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of excavation, compaction, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by excessive vibration and blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB
26.	Pollution of Soil and Water via Fuel and	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA

	Lubricants	<p>shall be located away from rivers, at least 200m away, water ways and water bodies.</p> <ul style="list-style-type: none"> ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 			
27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>surrounding the whole area.</p> <ul style="list-style-type: none"> ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road 			
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. ❖ First aid facilities and nursing staff to be provided at work places ❖ Provision of adequate transport facilities for moving injured persons to the nearest hospital 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
30.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camps are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF
31.	Management of the	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for 	Engineering	Contractor	PMU/PIU/RDA,/Consultant

	spread of Covid-19 or handling sudden Pandemic outbreaks	<p>pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details.</p> <ul style="list-style-type: none"> ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Cost		EngineerMoH
32.	Prevention of Vector borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
33.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment that can happen at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		Project.			
34.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
35.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with respective authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police

		<ul style="list-style-type: none"> ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed, the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 			
36.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>advance and carry out public consultation and report on the same should be submitted to the Engineer.</p> <ul style="list-style-type: none"> • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having atleast 3ft height suitable for the location as identified by the Engineer The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 			
39.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. • No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. • Washing the vehicles should be conducted periodically to prevent carrying any invasive species • The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

41.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> • All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. • The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. • The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint an Environmental and Social Safeguards Officer (ESSO) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
44.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer NBRO

		<p>from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling.</p> <ul style="list-style-type: none"> ❖ It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 			
45.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
46.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ Rehabilitation of quarry / borrow pits are to be a safe and secure area ❖ quarry / borrow pits can be backfilled with construction waste ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA./Consultant EngineerPRDA
47.	Environmental	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either 	Engineering	Contractor	RDA/Consultant Engineer,

	Enhancement/ Landscaping	<p>detailed design or typical design guidelines given as part of the Bid Documents.</p> <ul style="list-style-type: none"> ❖ The Contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Cost		PRDA
48.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA./Consultant Engineer PRDA
49.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
50.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Venue		Stakeholder Consulted	Gender	Views Raised
SR 11: Illukwatta Rathganga road	12.03.2021	Grama Niladari - Gileemale	Male	<ul style="list-style-type: none"> • Many pilgrims who visit Adam's peak visit Rathgama temple and they use this road. • Majority of people are Sinhalese, and the main livelihoods are tea cultivation and gem mining. • There are farmer's organizations operating in Medagama area.
	11.03.2021	Road user	Male	<ul style="list-style-type: none"> • The road development is good as the road is damaged. • This road is used to access Athuraliya, Rathgama and Malkella villages.
	11.03.2021	Road user	Male	<ul style="list-style-type: none"> • The road gets inundated during heavy rains. • Many people use this road and its good to develop the road.

2.12. ESMP of SR 12 - Dehenakanda Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 12 - Dehenakanda Road (12.1km)**

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background **Dehenakanda Road**

Road length: 12.1km

Coordinates: Starting Point: 6° 42.807'N, 80° 29.709'E
End Point: 6° 43.223'N, 80° 32.840'E

Location:

District: Ratnapura
DS Division: Ratnapura
EE Division: Ratnapura
GN Divisions: Dehenakanda, Hapugasthenna

1. Introduction

The Dehenakanda Road starts from Ratnapura - Wewalwatta (B391) Road and traverses for 12km. This road is currently under the custody of the Provincial Road Development Authority (PRDA), Sabaragamuwa. The surface of the road is macadam and damaged macadam. The Road is located within a hilly terrain area. Elevation of the trace varies between 354 –769 MSL. This road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

The Dehenakanda road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 12.1 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 4m (0.000km-2.000km), 3.2m(2.000km - 2.500), 3m (2.500km-12.100km), shoulder 0.5m (both sides), and drains as required. The estimated time for construction of this road is nine (9) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Dehenakanda road is around 4.9m and the average carriageway is 3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA (Sabaragamuwa) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA (Sabaragamuwa) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The Dehenakanda road provides access to several villages. There are waterfalls and many people visit the area. Hapugastenna tea estate is located along the road, and the road provides access to tea factories as well. Thus, this road development will facilitate convenience for the residents, recreational activities and transportation of tea.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Dehenakanda Road will have a majority of reversible, small-medium scale environmental and social impacts, specifically limited to the construction phase of the project including water quality impacts, temporary diversion of streams for culvert reconstruction, temporary loss of access to residents, common properties and the impact of dust, noise and vibration that can be managed by site specific mitigation measures therefore this sub-project can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** There are about 64 households and 25 shops along the road. The population is around 338. The majority of the population is Indian Tamil. There are also Sinhalese families. The religion of these people is Hinduism and Buddhism.
- **Land ownership:** The majority of the lands along the road are estate lands alienated under long-term lease agreements. There are also private lands along the road.
- **Livelihoods:** People are mainly engaged in tea cultivation. The Indian Tamil population work on tea estates as labourers. There are also people working in garment factories.
- **Local organisations:** There are two farmer organisations called Arunalu farmer organization and Dehenakanda Bambarakotuwa Joint farmer organization.
- **Community infrastructure and resources:** There are schools, a preschool, shrines, kovils and a maternity ward along the road as shown in the Table 1. During construction period, access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location - GPS Coordinate		Road side	Distance from the RoW
Cemetery	N 6°42'54.06"	E 080°29'51.70"	LHS	10m
Shrine (Christian)	N 6°42'56.08"	E 080°29'51.50"	LHS	1m
Ra/ Kaleimagal Tamil Vidyalaya	N 6°43'5.62"	E080°30'2.51"	RHS	15m
Kovil	N 6°43'6.65"	E 080°30'4.65"	Both sides	1m
Sri Muththumari Ambal Kovil	N 6°43'12.53"	E 080°30'30.95"	LHS	Boundary wall of the Kovil: 1m Kovil: 15m
Primary Medical Care Unit with Maternity ward and MoH	N 6°43'19.41"	E 080°30'42.06"	Both sides	30m
Pre - School	N 6°44'02.04"	E 080°31'43.68"	LHS	30m
Ra/ Sri NawalerVidyalaya	N 6°43'59.01"	E 080°31'40.01"	RHS	15m
Kovil	N 6°43'56.35"	E 080°32'5.09"	Both	2m

			sides	
o Kovil	N 6°43'55.77"	E 080°32'13.65"	RHS	2m

-going development projects: None \

- **Visitors to the area:** There are tea factories in the project area. People from outside come to these factories for trading activities. There are also waterfalls and many people visit the area for recreational activities.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of PRDA (Sabaragamuwa).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing

Screening Questions	Not known	Yes	No	Remarks
				RoW.
Is the ownership status and current usage of land known?		✓		The RoW is owned by PRDA (Sabaragamuwa). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through			✓	

Screening Questions	Not known	Yes	No	Remarks
land-use related changes?				
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There are ten (10) numbers of common properties as shown in Table 1
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Wewalwatta olice station which is 10km away from the project site. Further, “MithuruPiyasa” ¹² center is located in the Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 25 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.

¹² Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Will there be workers brought in from outside the project area?		✓		There is possibility of employing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 25. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: Dehenakanda Road (SR12)
Road Length: 12.1km
Location: District: Rathnapura
 DS Division: Rathnapura
 GN Divisions: Hapugastenna, Dehenkanda,

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		<p>No permanent or temporary diversion of streams required. Soil erosion control measures such as silt traps and silt fences will be applied at stream crossings; 1.23 (Culvert), 2.2 (Bridge), 3.54 (Bridge), 7.78 (Bridge), 9.05 (culvert), 11.4 (culvert), 12.6 (Culvert) and 11.9km (Bridge). A water fall of Kudugal Ella is located at 12.08km LHS (Height-6.8 m) and one stream is located parallel to road at from 9.4 – 9.5km.</p> <p>Sediments will be deposited in low terrain area. Site specific soil conservation measures shall be applied in order to minimize siltation of these</p>

			water bodies. Waterways if altered will be restored to the original condition.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Surface water quality at above mentioned streams will be deteriorated due to surface runoff contaminated with silt. Appropriate measures shall be taken to avoid contamination of surface runoff by silt and other chemicals used for construction and wastewater from workers camps. Providing adequate and appropriate facilities for Labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Noise and ground vibration will be increased due to compaction and heavy vehicle movement. All work will be within regulated noise and vibration levels and suitable measures to be taken to reduce ground vibration and noise accordingly. Blasting will not be necessary.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Special attention required to small towns located from 1.6 - 1.85km and 5.2 – 5.3km. Regular sprinkling of water to suppress dust and avoiding construction activities during night time.

- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and sanitary facilities should be increased to avoid common diseases such as Amoebic dysentery and diarrhea.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding water collection areas within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lams, retaining walls and providing PPE to laborers will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Dehenakanda road



Figure 1: Starting point of the proposed road



Figure 2: Stream crossing at 1.9km



Figure 3: Sri Muththumari Ambal Kovil located at 3.13km

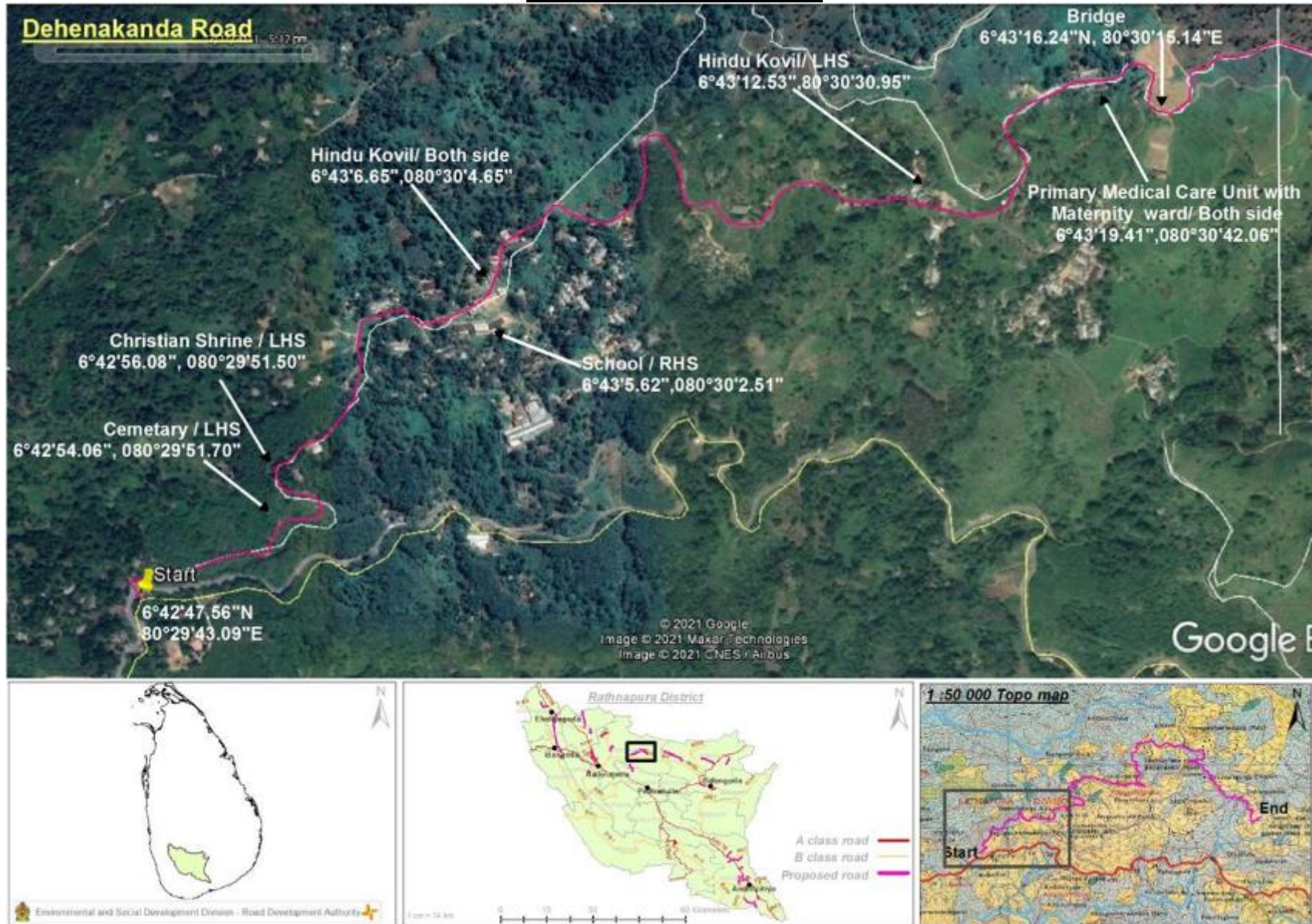


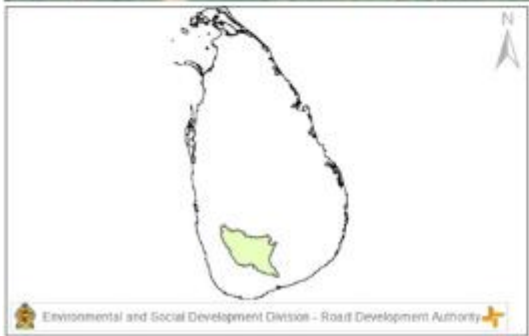
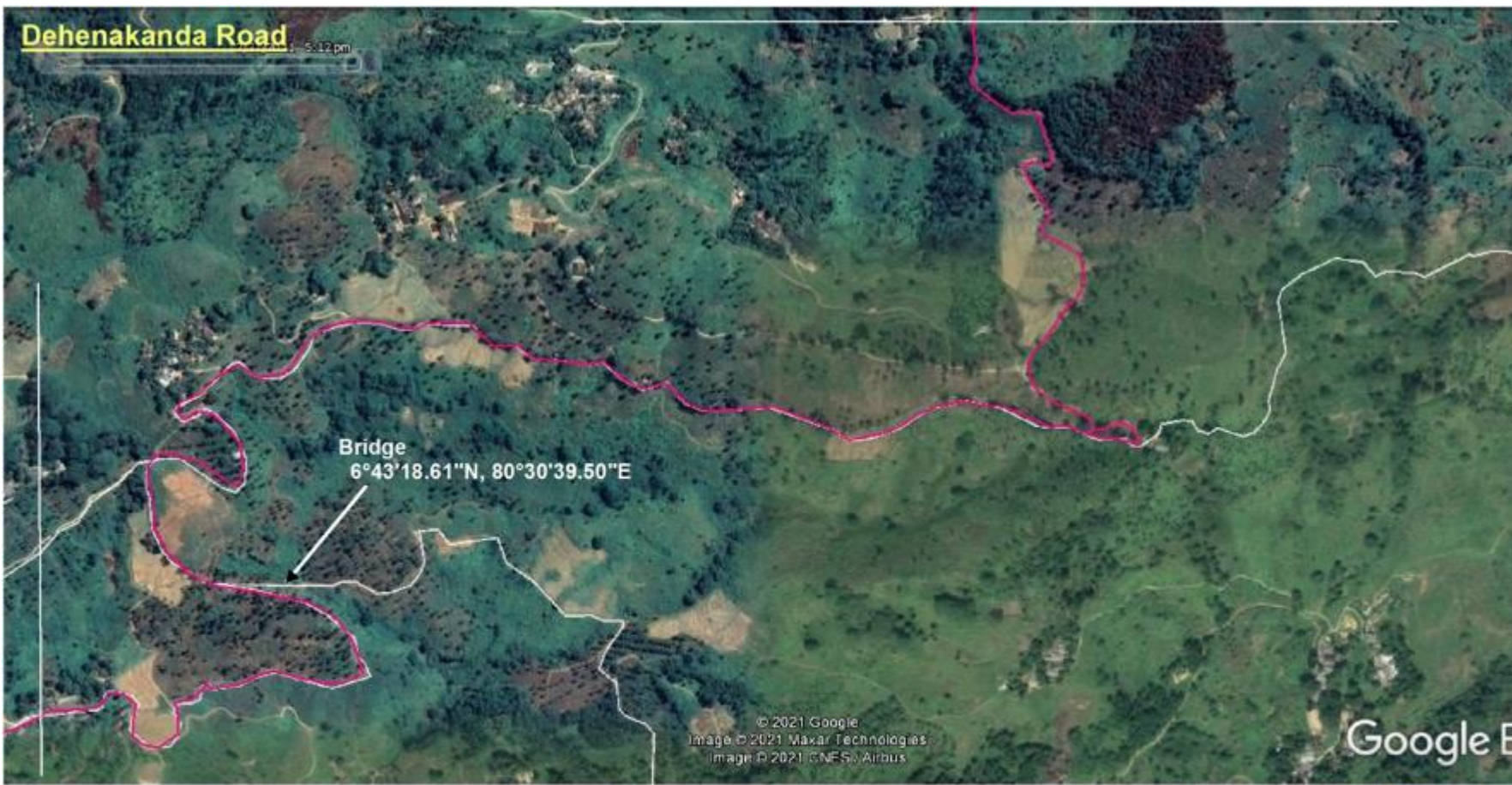
Figure 4: Tea cultivation located near to the road



Figure 5: End point of the road

Appendix 2 – Location Map





**Design Recommendations Based on Environmental and Social Screening for incorporation
in final design**

Name of Subproject: Dehenakanda Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Public highlighted that runoff gets accumulated and over flow due to inadequacy of culvert at Ch 1+700-1+800 km and Ch 2+990 km of the road. Therefore it is recommended to introduce additional culverts, lead away drains and side drains etc. to improve the drainage at these locations.	<ul style="list-style-type: none"> • Section 10 of ESMP • Bridge design manual of RDA
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included at 0+354 km to 0+769 km, 1+900 km and Ch 3+030 km if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	<ul style="list-style-type: none"> • Section 11 of ESMP • Any guidance to be issued by NBRO
Adequate safety measures to be taken during the construction as well as operation stage settlement area located at 1+600 and 5+200 km	<ul style="list-style-type: none"> • Section 27 and 36 of ESMP
An access road to be provided for visitors who visit Kudugal Ella water fall located adjoining to road (5 m away from the road)	<ul style="list-style-type: none"> • Section 14 of ESMP
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of Dehenakanda Road (SR12)

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPARATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Rathnapura). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>CBOs of the area</p> <ul style="list-style-type: none"> ○ The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ The construction will commence after receiving the written approval of the Engineer as well as Local Authority. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) 	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material are sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>Department of Irrigation, CBO) will not be allowed.</p> <ul style="list-style-type: none"> ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 			
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign lease agreement with the land owners and the contractor. ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB,NW&DB, SLT
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Prior approval should be taken for canal diversion from the relevant government organization and farmer's organizations. ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO). ❖ Existing slopes should not be disturbed to extent possible ❖ Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO,

12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, leader ways in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Sabaragamuwa PRDA
13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Sabaragamuwa PRDA
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. ❖ A permanent access should be allocated for the entrance to the Kudugal Ella water fall. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ The contractor shall identify the sites for disposal of material cleared. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ During the site clearance and disposal of debris, contractor will take to full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in non-residential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies (stream, etc..). ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA Pradeshiya shabha, ○ Minimize the construction debris/excavated materilas by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 			
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>thickness of 75mm – 150mm.</p> <ul style="list-style-type: none"> ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 			
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Any parties vulnerable for excessive dust located along the road especially at schools, medical centers and within 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact.</p> <ul style="list-style-type: none"> ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m from the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 			
20.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Please refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the nearby properties. Also, shall not be a danger of health hazard to the people. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA, GSMB

		<ul style="list-style-type: none"> ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 			
21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA,GSMB
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways. where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ○ grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities, excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Refer Annex III 			
23.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals and residential areas from 6:00PM to 6:00AM on the following day). ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ Any parties vulnerable for excessive noise residing along the road including schools, kovils, medical centers and residential areas located near to ROW should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA

		<ul style="list-style-type: none"> ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
24.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
25.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Any parties vulnerable for excessive vibration residing along the road especially at school, kovil, medical centers and within residential areas located adjacent to ROW should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Contractor shall compensate or repair any damage occurred to 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

		<p>third party property/ies as a result of his activity as agreed with the affected party and the Engineer</p> <ul style="list-style-type: none"> ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by excessive vibration and blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 			
26.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary)</p> <ul style="list-style-type: none"> ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary.</p> <ul style="list-style-type: none"> ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. ❖ First aid facilities and nursing staff to be provided at work places ❖ Provision of adequate transport facilities for moving injured persons to the nearest hospital 			
29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
30.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF

		<p>workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.</p> <ul style="list-style-type: none"> ❖ The sewage system for the camps are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 			
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant EngineerMoH
32.	Prevention of Vector borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
33.	Gender issues	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project 	Engineering	Contractor	PMU/PIU/RDA/Consultant

	including Gender base violence	<p>staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.</p> <ul style="list-style-type: none"> ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Cost		Engineer
34.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

35.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with the respective authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed, the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
36.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. Special consideration to be provided at the Kaleimagal Tamil Vidyalyaya and Kovil at 3.13km. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> ❖ All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. ❖ Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. ❖ If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. ❖ Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. ❖ Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. ❖ The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having atleast 3ft high suitable for the location as identified by the Engineer The planting should take place in public land suitable for the purpose ❖ The contractor shall build hardy structures around the trees for protection. ❖ The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 			
39.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> ❖ All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. ❖ Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. ❖ No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. ❖ Vehicles should be covered during transportation of cleared vegetation to and from the construction site. ❖ Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. ❖ Washing the vehicles should be conducted periodically to prevent 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>carrying any invasive species</p> <ul style="list-style-type: none"> ❖ The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 			
41.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> ❖ All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. ❖ The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. ❖ The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint an Environmental and Social Safeguards Officer (ESSO) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review environmental and social complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
44.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer NBRO

		<p>existing channel during intense rains</p> <ul style="list-style-type: none"> ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. ❖ It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 			
45.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
46.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ Rehabilitation of quarry / borrow pits are to be a safe and secure area ❖ quarry / borrow pits can be backfilled with construction waste ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the Engineer for information. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once 	Engineering Cost	Contractor	RDA./Consultant EngineerPRDA

		the contractor demobilizes.			
47.	Environmental Enhancement/ Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
48.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA,/Consultant EngineerPRDA
49.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
50.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Stakeholder consulted	Gender	Views raised
12.03.2021	GramaNildari - Dehenakanda	Male	<ul style="list-style-type: none">• The lands along the road are under 99-year lease estate lands.• Majority of people are Indian Tamil, and they work in estates as laborers.• There are farmer organizations operating in the area.
11.03.2021	Shop Owner	Female	<ul style="list-style-type: none">• There are five buses working on this road.• People use this road to go to Bambarakanda and Dehenakanda areas.• There are tea factories and waterfalls in the area. Therefore, people visit the area for trading and recreational activities.
11.03.2021	Estate laborer	Female	<ul style="list-style-type: none">• Work in the tea estate and work for 8 hours.• Paid daily for our work.
11.03.2021	Shop Owner	Male	<ul style="list-style-type: none">• Many people work in tea estates.• Have deeds for our lands.• Its good to develop the road.

2.13. ESMP of SR 13 - Iddamalgoda Sunderland via Moragala Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 13 - Iddamalgoda Sunderland via Moragala Road
(3.8km)**

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background

Iddamalgodu Sunderland via Moragala Road

Road length: 3.80km

Coordinates: Starting Point: 6° 51.646'N, 80° 15.268'E

End Point: 6° 52.276'N, 80° 14.009'E

Location:

District: Ratnapura

DS Division: Eheliyagoda

EE Division: Rathnapura

GN Divisions: Ganegoda, Bulugahapitiya, Pelpitiya, Moragala

1. Introduction

The Iddamalgodu Sunderland via Moragala Road starts from Colombo – Rathnapura – Wellawaya - Batticaloa Road (A004) and provides access to Karandana Road. This road is under the custody of the Provincial Road Development Authority (PRDA), Sabaragamuwa. The existing average right of way (RoW) of the road is around 5m and the average carriageway is 2.5m. The surface of the road is damaged macadam. Iddamalgodu Sunderland via Moragala Road has an undulating terrain and the elevation varies between 34 -134m MSL. People reported that drainage of storm water is an issue at the starting point of the road. Road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 3.8km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.2m, shoulder 0.5m (both sides), and drains as required. The estimated construction period of the road is six (6) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average right of way (RoW) of the Iddamalgodu Sunderland via Moragala road is around 5m and the average carriageway is 2.5m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA (Sabaragamuwa) will provide coordination support by attending to any public requests/views and for

drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA (Sabaragamuwa) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

People expressed the need for road improvement since the road has not been rehabilitated for a long period. There are rubber, paddy and tea cultivations along the road. The road development will facilitate travel convenience for the residents as well as the transportation of their agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021, and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 4 for the persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Iddamalgoda Sunderland via Moragala will have a majority of reversible, small-medium scale environmental and social impacts. The main social impact will be possible economic displacement to the lottery stall located within the existing ROW. The other impacts are temporary diversion of streams, water quality impacts, flood risks, temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures and preparation of ARAP, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to be occurred.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:**
There are about 64 households and 4 small shops located on either side of the road. The population is around 260. A majority of the population is Sinhalese. Indian Tamil and Muslim families are also living in some sections of the road. By religion, they are Buddhists, Hindus and Islamic.
- **Land ownership:** There is a lottery stall located within the existing RoW at the starting point (RHS) of the road. However, this will not be affected by the proposed development and the civil works (see Annex 3 for details of this lottery stall). Apart from that land is owned by titleholders, permit holders and people living on estate lands located beside the road.

Livelihoods: There are rubber, paddy, tea cultivations and home gardens along the road. Indian Tamil people are engaged in day today labour activities on rubber estates. Some people work in garment factories. Self-employment and government sector jobs are other sources of livelihoods.

Local organisations: There are community based organisations such as Rural Development Society, Farmers' Society, Elders' Society and Samurdhi societies.

- **Community infrastructure and resources:** There's a Buddha shrine at the end of the road and it is within the existing RoW (Table 1). Vibration levels generated by civil works can potentially damage the shrine. Therefore, specific vibration standards will be introduced to this particular location to prevent such damages. Also, a temporary access with proper barricading will be provided along the edge of the RoW during the construction period.

Table 1: Community infrastructure and resources:

Community infrastructure & resources	Location		Change	Road side	Distance from carriageway
Buddha Shrine	6°51'30.29"N	80°14'20.70"E	0+000km	RHS	2.6m

- **On-going development projects:** None
- **Visitors to the area:** Traders come to the village for commercial purposes connected with rubber, paddy, tea plantations and home gardens.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of PRDA (Sabaragamuwa).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		The RoW is owned by PRDA (Sabaragamuwa). The current usage of the land is road. There is also a lottery stall located within the existing

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
				RoW.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)		✓		There is a lottery stall located within the existing RoW. Refer Appendix 3 for details.
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		There is one lottery stall within the existing RoW. However, it will not be affected. Refer Annexure 3 for details.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals,		✓		There's a Buddha shrine at the end

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
places of worship?				point of the road as shown in Table 1.
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Eheliyagoda Police station which is 1km from the project site. Further, “MithuruPiyasa” ¹³ center is located in Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 15 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project		✓		There is possibility of employing outside labor if

¹³ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
area?				local labor is not sufficient.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 15. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: Iddamaloda Sunderland via Moragala Road (SR. 13)
Location: District: Rathnapura
DS Division: Eheliyagoda
Road Length: 3.8 km

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g.sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permanent alteration of waterways. However waterways will be temporary altered for construction of new culvert at 3.06km and rehabilitation of culverts at 0.24 and 0.39km and they will be restored to its original condition once the requirement is over. Site specific mitigation measures such as silt traps, silt fences will be applied to minimize soil erosion at above streams.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-	✓		Site specific soil conservation measures shall be practiced in

based camps and chemicals used in construction?			order to minimize impacts due to soil erosion at water bodies above mentioned. Labor from the host community shall be secured to the maximum possible so that requirement of labor camps will be minimum. Worker camps if required shall be established with the approval from the local authority and their recommendations shall be implemented to minimize impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting is not necessary. Noise and vibration levels generated due to civil works will be managed within the particular standards. Especial attention will be paid to the road section around 0.0 – 1.0km, 1.8km and 2.1km where houses are located at the edge of the road.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Around 0.0 – 1.0km, 1.8km and 2.1km, water will be sprinkled to dry surfaces suppress dust. Air quality, noise and vibration levels will be maintained below particular standards in order to minimize these impacts.
- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	

- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?		✓	
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and PPE for laborers will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 3 - Information on Encroachers/squatters within the RoW

Appendix 1 - Photographs of Iddamalgoda Sunderland via Moragala



Figure 1: Starting point of the road



Figure 2: Road section along settlements (0.0 – 1.0km)

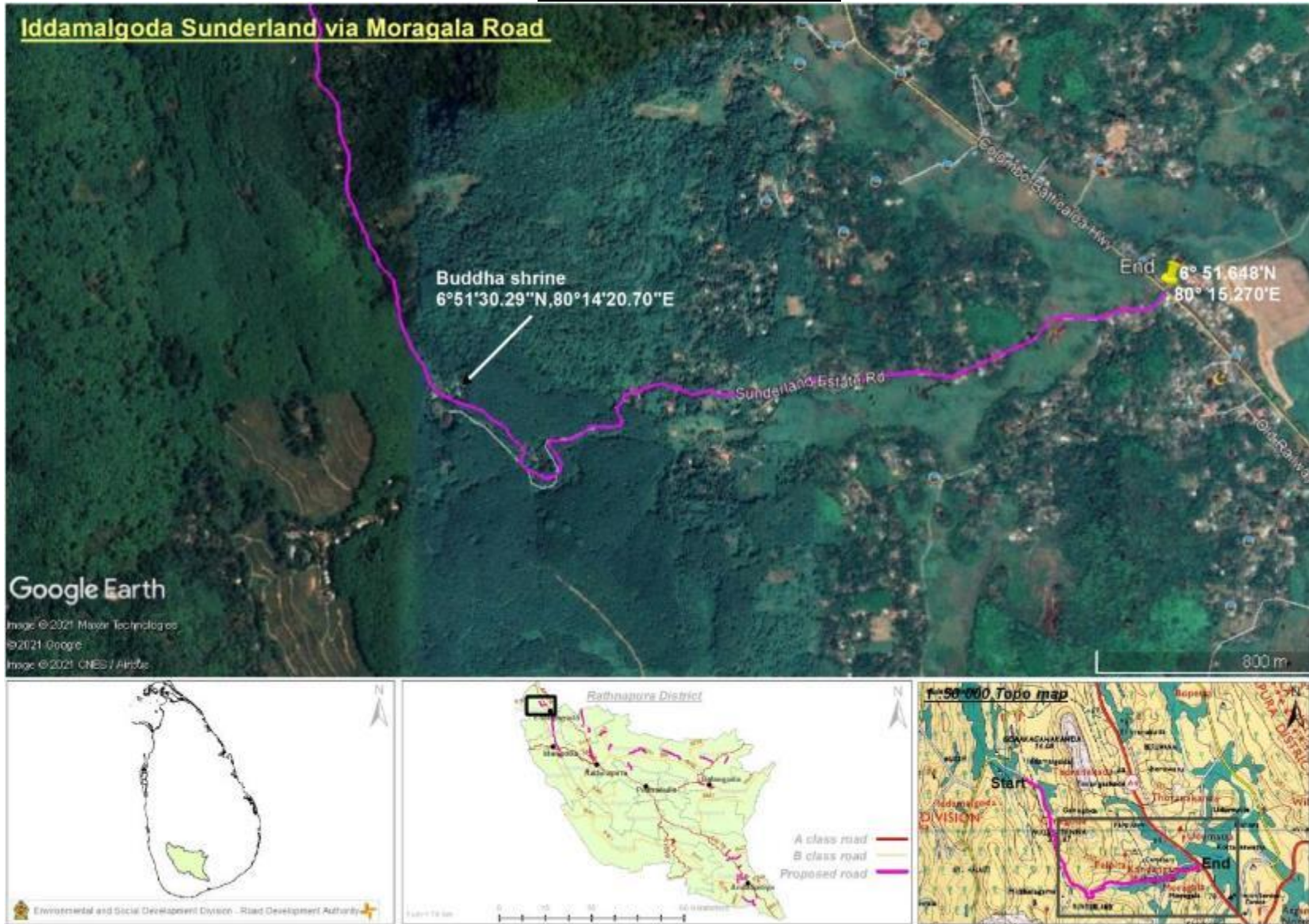


Figure 3: Road along the rubber estate

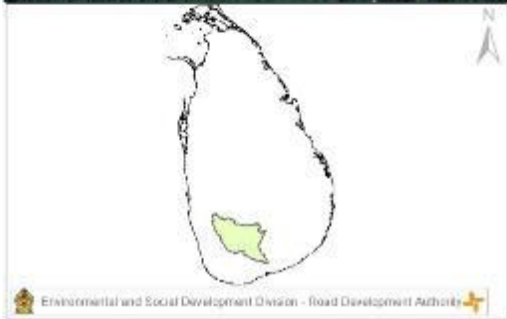
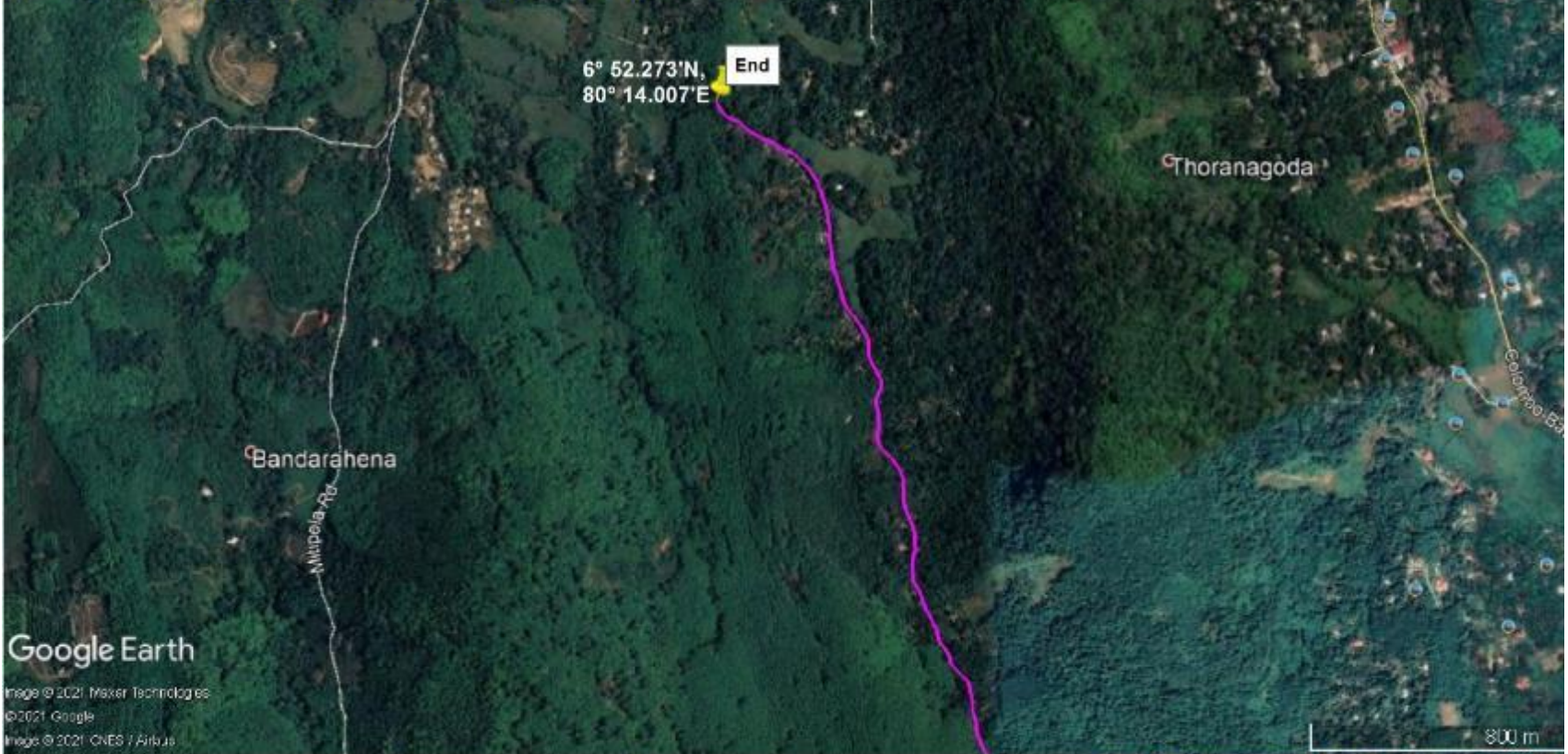


Figure 4: End point of the road


Appendix 2 – Location Map



Iddamaligoda Sunderland via Moragala Road



Appendix 3 - Information on Encroachers/squatters within the RoW

Photo	Coordinate	Distance to the carriageway	Description	Impact and mitigation
	<p>6°52'16.45"N 80°14'0.56"E</p>	<p>2.4m from the edge of the existing carriageway at 0.000km.</p>	<p>Owner of the lottery stall is Mr. Chaminda Deshapriya. His monthly income is about Rs. 20,000. This is his only income source. There are 02 family members in his family. He is doing this business in the location for 15 years.</p>	<p>The lottery stall is located at the edge of the RoW which is 5m. The improvement to the road include 3.2m carriageway, 0.5m shoulder (both sides) and drains as required. Therefore, the lottery stall will not be affected. However, there will be temporary impacts such as dust, noise and vibration during construction. These temporary impacts will be mitigated through regular sprinkling of water and by managing noise and vibration levels generated due to civil works within the particular standards.</p>

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Iddamalgoda Sunderland via Moragala	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
The Buddha Shrine and the shed provided for the three wheeler taxi park located at the right hand side of the starting point of the road should not be affected. Therefore it is recommended to revise the cross section (if required) of the starting point accordingly.	
A lottery stall is located at the edge of the ROW at Right side of the starting point. If the lottery stall needs to be relocated, consult social experts of the project prior to final design.	<ul style="list-style-type: none"> • ARAP will provide guidance for relocation.
Along the 1km, ROW of the road is restricted by the houses located on either side. Therefore, necessary design modifications can be used to utilize the available ROW effectively. For example, it is recommended to use “L” drains or to use cover slabs if lined drains are to be introduced for this section.	
It is recommended to recheck the design on ground not to affect any private land or structures especially around 0.0 - 1km, 2.2 – 2.2km and along the road. In case of any occurrence of need of private land strips for safety improvements, consult social experts of the project prior to final design.	
Erosion control mats or brush barriers should be constructed along the canal which flow along the road from 0.0 – 0.3km in order to control sedimentation of the canal.	<ul style="list-style-type: none"> ❖ Annex III ❖ Section 23 of ESMP
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of Iddamalgoda Sunderland via Moragala Road (SR13)

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Engineers review and approval. 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees along this road was not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Eheliyagoda). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. ○ Removed trees of economic value must be handed over to the 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer

		<p>Timber Corporation.</p> <ul style="list-style-type: none"> ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hire labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer prior to their construction. ❖ The construction of the labor camp will commence only upon the written approval of the Engineer and then from the relevant local authority. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Adequate measures should be provided for proper drainage facilities to the labour camps and to prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Inspector (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer

		<p>available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire.</p> <ul style="list-style-type: none"> ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Provision of paved area for unloading and storage of fuel oil, lubricant oil, away from storm water drainage and a provision of roof where appropriate to avoid interception with the rain ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from sources which are operated with a valid license. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil, fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NWS&DB, Department of Irrigation, CBO) is not allowed. ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes and project's grievance redress mechanism via a documented community consultation session ○ These sessions need to be conducted in both Sinhalese and Tamil languages, given the ethnic composition of the project area. ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ In case of any complaint referring to GN and DS level GRM, the contractor should have the copy of the minutes of such decisions. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ The land should be handed over to the owner with a written concurrence once the use is over. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public in all local languages about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department and Department of Agrarian Development ❖ Temporary diversion of water ways during construction (if required) should be ensured that no obstruction to natural water flow (E.g: Canal flows along the edge of the road from 0.0 – 0.3km) ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	<ul style="list-style-type: none"> ❖ Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO). ❖ Existing slopes should not be disturbed to the extent possible ❖ Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO

12.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements, to improve safety including realignment of bends, to avoid bottle necks or construction of cross drainages, lead-away in the locations where required. ❖ All effort will be made to minimize the land donation for the project ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Grama Niladari and/or Divisional Secretariat. ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
13.	Small shops located within the existing ROW (Preparation and Implementation of ARAP)	<ul style="list-style-type: none"> ❖ In case the lottery stall at the starting point is temporarily affected by construction work, the preparation of the ARAP and obtaining WB approval is required prior to the commencement of civil works. ❖ The civil work should commence only after the relocation of the lottery stall to an alternate location, and if necessary after paying due compensation. ❖ The procedure to be followed in this regard will be included in the ARAP and contractor should assist the PMU for implementation of the ARAP. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Sabaragamuwa PRDA
14.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Sabaragamuwa PRDA
15.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
16.	Clearing of road shoulders and Removal and Disposal of	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

	construction debris and materials excavated	<p>care need to be taken, not to damage crops and trees in private lands.</p> <ul style="list-style-type: none"> ❖ During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 			
17.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 			
18.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
20.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.19. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Special attention should be paid to the houses located adjoining to the ROW from 0.0 to 1km and around 2.1 – 2.2km. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 			
21.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license (Industrial Mining License (IML)) from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the GSMG, CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA, GSMB
22.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML; ❖ Prior approval should be obtained from GSMB, CEA and local 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA,GSMB

		<p>authorities such as Pradeshiya Sabha.</p> <ul style="list-style-type: none"> ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 			
23.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways where necessary along the road corridor (E.g: along the canal from 0.0 to 0.3km). ❖ Erosion control mats or brush barriers should be constructed along the canal from 0.0 – 0.3km in order to control sedimentation of the canal (Please refer Annex III for details). ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In hilly terrain and areas with slopes; <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>proper mulch.</p> <ul style="list-style-type: none"> ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Refer Annex III 			
24.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ Any vulnerable parties for high noise impact residing along the road especially within residential areas within 0.0 – 1km and 2.1 – 2.2km should be identified in advance and measures as agreed with the Engineer should be implanted to minimize the impact. ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA

		<p>public holidays and religious days. Special care should be taken as there is a temple nearby.</p> <ul style="list-style-type: none"> ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
25.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
26.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take special care at the starting point of the road to protect the Buddha shrine located on Right Side as agreed with the Engineer and the caretakers of the shrine. . ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration (E.g: houses along 0.0 - 1km and 2.1 – 2.2.km). ❖ Any vulnerable parties for vibration impact residing along the road especially within residential areas within 0.0 – 1km and 2.1 – 2.2km should be identified in advance and measures as agreed with the Engineer should be implanted to minimize the impact. ❖ Prior to commencement of excavation, compaction, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

		<p>compliance with the criteria, if vibration levels exceed the relevant vibration criteria.</p> <ul style="list-style-type: none"> ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 			
27.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards specified under the NEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set under the NEA. ❖ Engineer will certify that all arrangements comply with the standards specified under NEA and guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA
28.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
29.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ First aid facilities and nursing staff to be provided at work places ❖ Provision of adequate transport facilities for moving injured persons to the nearest hospital ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks, not allowing large gatherings...etc.) for prevention of the spread of COVID-19 virus will be adhered to. 			
30.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
31.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF

		<p>adequate water supply is to be provided in all toilets and urinals.</p> <ul style="list-style-type: none"> ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 			
32.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer MoH
33.	Prevention of Vector Borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
34.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated into the Grievance readdress Mechanism of the Project. 			
35.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers’ grievances and complaint/ suggestion boxes can be placed at the supervision consultant’s office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
36.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with the respective authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police

		<ul style="list-style-type: none"> ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 			
37.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
39.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>same should be submitted to the Engineer.</p> <ul style="list-style-type: none"> • Contractor shall adhere to the guidelines and recommendations made by the CEA/DS, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 			
40.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. • No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. <ul style="list-style-type: none"> • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. • Washing the vehicles should be conducted periodically to prevent carrying any invasive species • The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Chance find procedures for PCRs	<ul style="list-style-type: none"> • All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

	and Archeological Property	<p>interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.</p> <ul style="list-style-type: none"> • The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. • The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 			
43.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
44.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters (Environment and Social Safeguards Officer (ESSO)). All public complaints will be entered into the Complaints Register. The Environmental and Social Safeguards Officer will promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
45.	Prevention of landslides	<ul style="list-style-type: none"> ❖ Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc... as per the designs given in the Contract documents and any other measures instructed by the Engineer. ❖ Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc... and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains ❖ Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. ❖ It is necessary to monitor the possible locations of landslides 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer NBRO

		during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls			
46.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
47.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA, /Consultant Engineer PRDA
48.	Environmental Enhancement/Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
49.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA, /Consultant Engineer PRDA

50.	Hydrology and drainage	❖ Routine maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
51.	Replanting of trees	❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer
52.	Commercial units located within the existing ROW (Post monitoring of ARAP)	❖ PMU will carry out consultations with owners of affected shops and discuss about their permanent relocation. ❖ The shop owners will be linked with relevant local authorities to (if necessary) for further assistance.		PMU/PIU	PMU/PIU/RDA/Consultant Engineer

Stakeholder consultation notes

Refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
12.03.2021	Grama Niladari - Bulugahapitiya	Male	<ul style="list-style-type: none">• People live in this GN division belong to Tamil ethnic community.• People engage in wage labor and self-employment.
12.03.2021	Grama Niladari - Ganegoda	Male	<ul style="list-style-type: none">• Majority people in this GN division are Sinhalese.• People also work in garment factories and government institutions.
11.03.2021	Road user	Male	<ul style="list-style-type: none">• This road needs to be developed.• The road was not developed for a long time and now it's in dilapidated condition.

2.14. ESMP of SR 15 - Paper mill road from Kubugoda Ara junction to Thalawa road Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

**Environmental and Social Management Plan
(ESMP)**

of

**SR 15– Paper mill road from Kubugoda Ara junction
to Thalawa road Road**

(4.15km)

Draft Final Report

June 2021

Background

Paper Mill Road from KubugodaAra Junction to Thalawa Road

Road length: 4.15km

Coordinates: Starting Point 6°18'7.55"N,80°49'45.43"E
End Point 6°16'54.54"N, 80°51'30.70"E

Location:

District: Ratnapura
DS Division: Embilipitiya
EE Division: Embilipitiya
GN Divisions: KumbugodaAra, Thorakolayaya, Halmilketiya and Hingura

1. Introduction

The Paper Mill Road from KubugodaAra junction to Thalawa Road (4.15km) starts at Embilipitiya Middeniya Road (B-486) and provides a connection to Thalawa Daberella Higura & Middeniya road. This road is under the custody of Embilipitiya Pradeshiya Sabha. The surface of the road is concrete and damaged macadam. The road traverses along a flat terrain where the elevation varies between 75 – 99m MSL. There is a small tank located between 3.7 to 4.1km on Left Hand Side of the road and seasonal water streams that the road crosses over. This road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 4.15 km. The surface will be rehabilitated with asphalt concrete or concrete as necessary and drainage will also be improved. Proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 5 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW., In some cases the drains may need to be located leaving some gap to the RoW., In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Paper Mill Road from KubugodaAra Junction to Thalawa Road is around 7m and the average carriageway is 3.5m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. Embilipitiya Pradeshiya Sabha will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Embilipitiya Pradeshiya Sabha will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to Embilipitiya Middeniya Road (B-486). There are banana cultivations and home gardens. The road is used for transportation of these agricultural produce to the market. This road also provides access to Embilipitiya Industrial Zone, Peper mill and Nelna farm.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and to take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of the Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Paper mill road from Kubugoda Ara Junction to Thalawa Road will have a majority of reversible, small-medium scale environmental and social impacts, specifically limited to the civil works phase of the project including temporary loss of access to residents, common properties and the impact of dust, noise and vibration that can be managed by site specific mitigation measures therefore this sub-project can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** There are about 59 households and 12 small shops located at both side of the road. The estimated population is 270 persons. All of them are Sinhala Buddhists.

- **Land ownership:** There are no squatters along the road. All the lands are private and Government lands.
- **Livelihoods:** Agriculture is the main source of livelihood in the project area. Banana and pepper are the main agricultural crops. Some people are engaged in public and private sector jobs as well.
- **Local organisations:** There are organisations connected with agricultural activities such as “GoviSamithi”(Farmer Organizations).
- **Community infrastructure and resources:** Details of community infrastructure and resources are provided in Table 1. During construction period, the access to them will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1:Community infrastructure and resources

Community infrastructure & resources	Location		Chainage	Road side	Distance from the RoW
Midwife’s Office	6°18'6.33"N	80°49'46.67"E	0+100	RHS	1 m
Pre - school	6°18'5.18"N	80°49'48.05"E	0+110	LHS	1m
Buddha shrine + Bo- tree	6°17'6.08"N	80°50'38.02"E	2+550	RHS	3m
Emblipitiya Industrial Zone	6°17'5.37"N	80°50'42.78"E	2 + 700	LHS	5m

- **On-going development projects:** None
- **Visitors to the area:** People from outside come to the project area to buy agricultural produce.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Pradeshiya Sabha(local authority).

Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		✓		Land within the RoW is owned to Embilipitiya Pradeshiya Sabha. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected people as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a Buddha shrine and a pre-school in the vicinity (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Embilipitiya Police station which is 3.12km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 20 laborers will be recruited for the project.

Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	NO
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 20. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: Paper mill road from Kubugoda Ara junction to Thalawa road (SR 15)
Road Length: 4.15km
Location: District: Ratnapura
 DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		Permanent alteration of streams will not be required however streams at 2.92km where new culvert is to be constructed and at culvert reconstructions; 0.48, 0.8, 1.73, 1.3, 1.87, 2.5, 3.52 and 3.73km will be temporary diverted. However water flow at these locations will be continued to downstream and restored to original condition. Soil erosion control measures such as silt traps and silt fences will be applied to minimize siltation

			impacts.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Site specific soil conservation measures shall be practiced especially at streams mentioned above and along the small tank from 3.7 to 4.1km on Left Hand Side in order to minimize impacts due to soil erosion. Local labor from the host community shall be secured to the maximum possible so that requirement of labor camps will be minimum. Worker camps if required shall be established with the prior approval from the local authority and their recommendations shall be implemented to minimize impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting along the road is not necessary. All civil works shall be managed in compliance with the permissible levels of noise and vibration as specified in the national standards.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Regular sprinkling of water to suppress dust during the construction phase and avoiding project activities during the night time will mitigate these impacts.
- Hazardous driving conditions where construction interferes with pre-existing roads?	✓		Speed limits shall be applied and monitored for all construction vehicles during the construction phase.

- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Securing of local labor as much as possible and location of worker camps if required only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Wastewater and solid waste shall be properly disposed complying with the relevant standards. Pockets of water stagnation shall be avoided at every construction sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for laborers will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

List of Appendixes: Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 – Photos of Paper mill road from Kubugoda Ara junction to Thalawa road



Figure 1: Starting point of the road



Figure 2: Road along the home gardens



Figure 3: Gravel section of the road



Figure 4: Access road of the Embilipitiya Industrial Zone located at 2.70km on LHS of the road

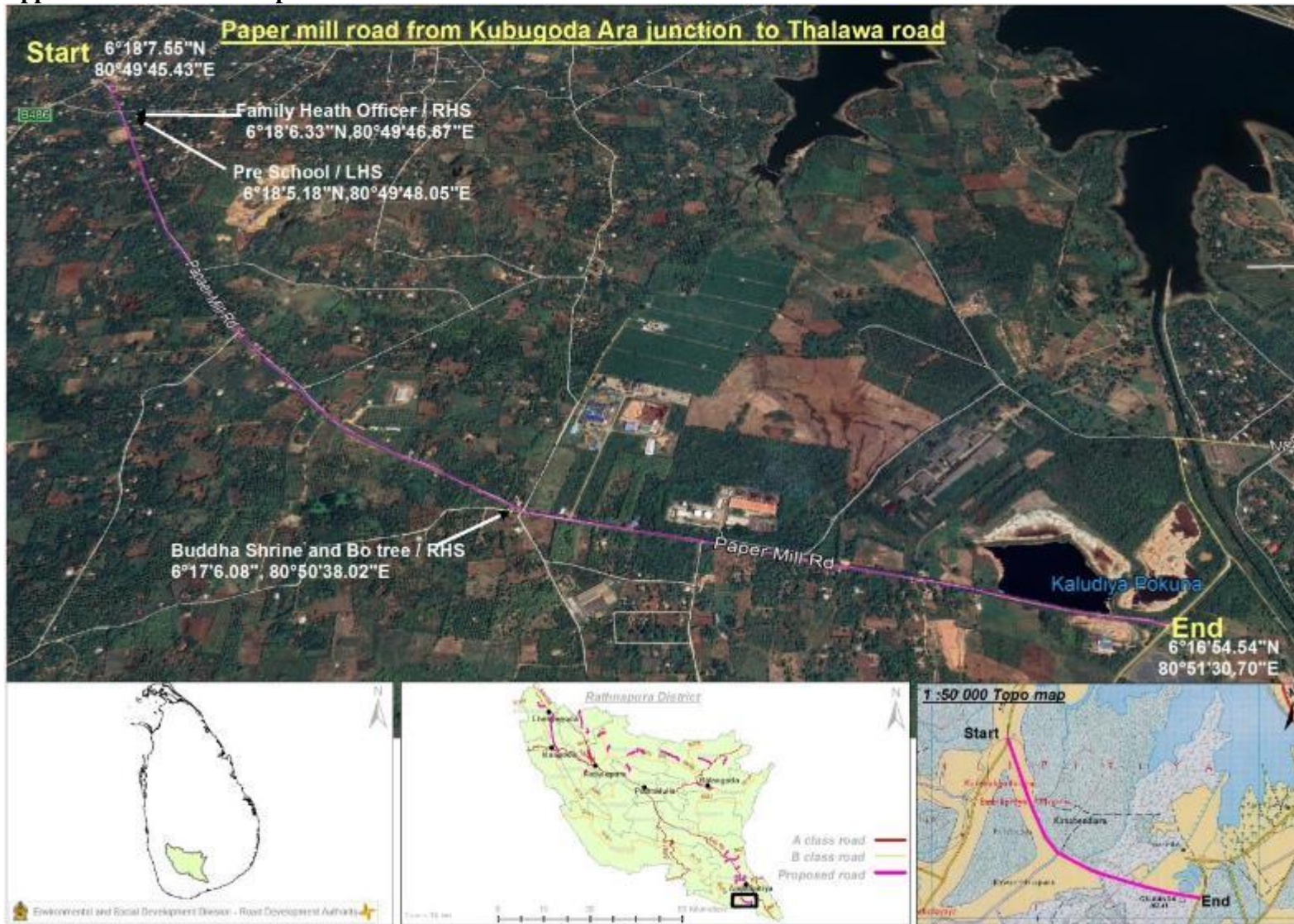


Figure 5: Buddha Shrine located at 2.55km on RHS of the road



Figure 6: End point of the road

Appendix 2 - Location Map



**Design Recommendations Based on Environmental and Social Screening for
incorporation in final design**

Name of Subproject: Paper mill road from Kubugoda Ara junction to Thalawa road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
It is recommended to modify alignment of the road if the small tank located from 3.7 – 4.1km on left hand side is going to be affected.	<ul style="list-style-type: none"> • Section 10 of ESMP
Permanent silt control measures should be introduced to the small tank located at the edge of the road from 3.7 – 4.1km on left hand side.	<ul style="list-style-type: none"> • Annex III
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 15 Peper mill road from Kubugoda Ara Junction to Thalawa road Road under the Inclusive Rural Connectivity and Development Project of Sabaragamuwa Province

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPARATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Rathnapura). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and recommendations 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation.</p> <ul style="list-style-type: none"> ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands may be taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence after receiving the written approval of the Engineer as well as Local Authority. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be 	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<p>available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire.</p> <ul style="list-style-type: none"> ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material are sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, Department of Irrigation, CBO) ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		engineer.			
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign lease agreement with the land owners and the contractor. ❖ The land should be handed over to the owner with a written concurrence once the use is over. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB, NW&DB, SLT

		<ul style="list-style-type: none"> ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 			
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation Department, Provincial Irrigation Department, Agrarian Department and Farmers Organizations. ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Small tank located from 3.7 – 4.1km should not be encroached for road rehabilitation. ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, leader ways in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
12.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	

13.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
14.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ During the site clearance and disposal of debris, contractor will take to full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in non-residential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies (stream, etc..). ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA Pradeshiya Shabha, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

15.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
16.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		authorities and need to maintenance during the use by the Contractor			
18.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.17. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m from the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA, GSMB

		<ul style="list-style-type: none"> ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 			
20.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA,GSMB
21.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways. where necessary along the road corridor. ❖ Silt traps as given in Annex III should be incorporated to control siltation of the small tank located from 3.7 – 4.1km on left hand side. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities, excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Refer Annex III 			
22.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals and residential areas from 6:00PM to 6:00AM on the following day). ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA

		<p>holidays and religious days. Special care should be taken as there is a temple nearby.</p> <ul style="list-style-type: none"> ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
23.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
24.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Prior to commencement of excavation, compaction, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by excessive vibration and blasting work. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

		<ul style="list-style-type: none"> ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 			
25.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
26.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
27.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. ❖ First aid facilities and nursing staff to be provided at work places ❖ Provision of adequate transport facilities for moving injured persons to the nearest hospital 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
28.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>boards and lighting etc.</p> <ul style="list-style-type: none"> ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 			
29.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camps are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF
30.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant EngineerMoH

		<ul style="list-style-type: none"> ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 			
31.	Prevention of Vector Borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
32.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
33.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		<p>introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.</p> <ul style="list-style-type: none"> ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 			
34.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with respective authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed, the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
35.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
36.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>impacts during the civil works.</p> <ul style="list-style-type: none"> ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 			
37.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having atleast 3ft heighsuitable for the location as identified by the EngineerThe planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed.</p> <ul style="list-style-type: none"> No solid or liquid waste should be dumped into natural habitats. 			
39.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. <ul style="list-style-type: none"> Vehicles should be covered during transportation of cleared vegetation to and from the construction site. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. Washing the vehicles should be conducted periodically to prevent carrying any invasive species The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint an Environmental and Social Safeguards Officer (ESSO) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The ESSO will 			

		<p>promptly investigate and review public complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.</p> <ul style="list-style-type: none"> ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
43.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
44.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ Rehabilitation of quarry / borrow pits are to be a safe and secure area ❖ quarry / borrow pits can be backfilled with construction waste ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA./Consultant EngineerPRDA
45.	Environmental Enhancement/Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA

46.	Road furnishing on safety.	❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	Engineering Cost	Contractor	RDA,/Consultant Engineer PRDA
47.	Hydrology and drainage	❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
48.	Replanting of trees	❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Venue	Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
		Type of Stakeholder	Number of Participants (M/F)	
SR 15: Paper Mill road from Kubugoda Ara junction to Thalawa Road	11.03.2021	GrmaNiladhari, Thorakolayaya	Male	<ul style="list-style-type: none"> • It is important to develop this road as the surface is damaged and the road provides a link to Embilipitiya Middeniya Road (B-486). • There are Banana cultivations and home gardens. • The road is used for transportation of these agricultural produce to the market.
	11.03.2021	GramaNiladhari, Hingura	Female	<ul style="list-style-type: none"> • Road surface is damaged, so road needs to be developed. • Almost all the population living along the project area is Sinhalese and their religion is Buddhism. • Agriculture is the main livelihood in the project area. Some people are engaging in public and private sector employments.

2.15. ESMP of SR 16 - Kubugoda Ara - Udagama Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 16 - Kubugoda Ara - Udagama Road (2.20km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background

Kubugoda Ara Udagama Road

Road length: 2.20km

Coordinates: Starting Point 6° 18.641'N 80° 50.040'E
End Point 6° 19.781'N 80° 50.655'E

Location:

District: Ratnapura

DS Division: Embilipitiya

EE Division: Embilipitiya

GN Divisions: Yodagama, Modarawana

1. Introduction

The Kubugoda Ara Udagama Road (2.20km) starts at Embilipitiya - Middeniya Road (B 486) and provides a connection to the same B486 road. This road is under the custody of Embilipitiya Urban Council. The existing average RoW of the road is around 7.1m and the average carriageway is 3.8m. The surface of the road is concrete and damaged macadam. The road traverses along a flat and undulating terrain, and the elevation of the trace varies between 69– 90m MSL. There are no protected areas located within or adjacent to the road trace.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.2 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains as required. Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e. RoW). The edge between the strip and the land (RoW) is also shown in each lot plan . Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Kubugoda Ara Udagama Road is around 7.1m and the average carriageway is 3.8m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Urban Council will provide coordination support by attending to any public requests/views and for

drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from the Embilipitiya Urban Council will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The road provides access to settlements and connects to Embilipitiya - Middeniya Road (B 486) . Therefore, it is important to develop this road.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021, and to collect all available information, and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 4 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Kubugoda Ara Udagama Road will have a majority of reversible, small-medium scale environmental impacts. The main social impact will be possible economic displacement to the small shop located within the existing ROW. The other impacts are temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures and preparation of ARAP, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** There are about 87 households and 06 small shops on both sides of the road. The estimated population is 350. They are all Sinhala Buddhists by ethnicity and religion.

Land ownership: All the lands are private and government lands. There is a small shop located within the existing RoW at the 0+784km (LHS) of the road. The road construction activities will take place very close to the shop. The project will follow five steps to avoid any income loss for the owner as follows.

Step 1: Inform the owner prior to construction activities.

Step 2: Finding an alternative location to continue the business close by and inform the customers on possible relocation.

Step 3: Building a temporary structure at the alternate location (alternate location available is her house located close by) to start the business while continuing the business at the original location.

Step 4: Relocate the business with the transport and labor assistance from RDA prior to construction activities of the road.

Step 4: Monitor the income of affected person.

Step 5: Relocate the owner to the original location or let the person to continue the business at the alternate location after road construction as it is her own place. Refer Annex 3 for details.

- **Livelihoods:** Paddy cultivation, and home gardens comprising coconut and banana plantations generate incomes to the households. Some people are also engaged in wage labour, public and private sector jobs.
- **Local organisations:** There are community-based organisations such as Farmer Societies in the area.
- **Community infrastructure and resources:** There is a Buddha shrine, a Bo Tree and a Temple along the road. During construction period, access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after the construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location - GPS		Chainage	Road side	Distance from the Row
	Coordinate				
Buddha Shrine	6° 18.641'N	80° 50.040'E	0.000	LHS	Edge of the ROW -2.8m from carriageway
Bo –tree	6° 19.641'N	80° 50.17 72'E	1+810	LHS	Edge of the ROW -1.4m from carriageway
Temple	6° 19.665'N	80° 50.411'E	2+180	RHS	Edge of the RoW -3.3m

On-going development projects: None

- **Visitors to the area:** People from outside come to the project area to buy agricultural produce.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Urban Council.
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		Land within the RoW is owned by Embilipitiya Urban Council. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)		✓		There is a temporary shop made of wood located within the existing RoW. Refer Annex 3 for details.
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		One squatter will be affected by the project at least for one week. Refer Annex 3 for details.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	

Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a Buddha shrine, Bo Tree and Temple in the vicinity as shown in Table 1.
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Embilipitiya Police station which is 1.97km away from the project site.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is a possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	One squatter within the existing RoW will be affected.
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: Kubugoda Ara Udagama road (No. 16)
Road Length: 2.2km
Location: District: Ratnapura
 DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		✓	
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?		✓	
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Local air pollution will be slightly increased at crushing plants, batching plant, asphalt plant and construction site during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting is not necessary. Sensitive Receptors is given in the

			Screening Checklist to determine the level of Social impacts in the table on question number 06. Noise and Vibration will be increased at construction sites during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards.
- Hazardous driving conditions where construction interferes with pre-existing roads?	✓		Some sections of the road surface are of damaged macadam, concreted and gravel. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Securing of local labor as much as possible and location of worker camps if required only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats form mosquito vectors of disease?	✓		Wastewater and solid waste shall be properly disposed complying with the relevant standards. Pockets of water stagnation shall be avoided at every construction sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills	✓		Implementation of a proper traffic management plan during the

of toxic materials and loss of life?			<p>construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will mitigate these impacts.</p> <p>Regular maintenance and keeping construction vehicles up to the necessary standards will mitigate accidental spills of toxic materials. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles. Health and safety regulations under the factory ordinance with regard to provision of health and safety measures and amenities at work place shall be comply. However the accident of loss of life is very rare in the site.</p>
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map

Appendix 3: Information on Encroachers/Squatters

Appendix 1 - Photographs of Kubugoda Ara Udagama Road



Figure 1: Starting point of the road



Figure 2: Along the road



Figure 3: Buddha shrine and Bo tree located at 1.810km on LHS of the road




Figure 4: End point of the road

Appendix 2 – Location Map



Appendix 3: Information on Encroachers/Squatters

Photo	Coordinate	Distance to the carriageway	Description	Impact and mitigation
	<p>6° 19.044'N 80° 50.039'E</p>	<p>1.0m from the edge of the carriage way at 0.784km on LHS</p>	<p>Owner of the Business is Mrs. K.P Shama. Her daily income is about Rs. 1500-2000. There are 04 family members in her family. She is doing this business for 05 month.</p>	<p>The shop is located at the edge of the RoW which is 7.1m. The improvement to the road include 3.5m carriageway, 0.5m shoulder (both sides) and drains as required. As per the proposed improvement, the shop will not be affected, however, the construction activities will take place very close to the shop.</p> <p>In order to mitigate the impact and avoid any income loss for the owner, the project will inform the owner at least two weeks prior about construction activities of this location and will take necessary action to operate the business from an alternate location for one week.</p>

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Kubugoda Ara- Udagama Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Public highlighted that runoff gets accumulated throughout the road even during a minor rain event due to absence of proper drainage facilities. Therefore it is recommended to introduce additional culverts, lead away drains and side drains etc. to improve the drainage at this location.	<ul style="list-style-type: none"> • Section 10 of ESMP • Bridge design manual of RDA
A small shop is located within the existing ROW at Right side of 0.784km. If the small shop needs to be relocated, consult social experts of the project prior to final design.	ARAP will provide guidance for relocation.
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of Kubugoda Ara - Udagama Road (SR16)

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Embilipitiya). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and recommendations made by the Central Environmental 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>Authority, if any with regard to felling of trees and removal of vegetation.</p> <ul style="list-style-type: none"> ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence only upon the written approval of the Engineer and the relevant local authority. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. 	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, Department of Irrigation, CBO) will not be allowed ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 			
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents with other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners. ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB,NW&DB, SLT

		<p>disruption</p> <ul style="list-style-type: none"> ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 			
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation Department, Provincial Irrigation Department, Mahaweli Authority and Agrarian Department. ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer

12.	Commercial units located within the existing ROW (Preparation and Implementation of ARAP)	<ul style="list-style-type: none"> ❖ In case the small shop located within the ROW at 0.784km on LHS is affected, the preparation of the ARAP and obtaining the WB approval is required prior to the commencement of civil works. ❖ The civil work can commence only after the relocation of the small shop to an alternate location and (if required) payment of due compensation. ❖ The procedure to be followed in this regard will be included in the ARAP and contractor should assist the PMU in the implementation of the ARAP 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Embilipitiya UC
13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Embilipitiya UC
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ○ downwind side ○ should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Ebilipitiya Local Authority, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. <ul style="list-style-type: none"> ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 			
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems.</p> <ul style="list-style-type: none"> ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 			
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Parties vulnerable for excessive dust levels such as residential areas should be identified in advance and necessary measures as agreed with the Engineer should be implemented to mitigate the impact. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should eb located at least 500m form the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
20.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA, GSMB

		<ul style="list-style-type: none"> ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 			
21.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA,GSMB
22.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways where necessary along the road corridor. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Refer Annex III 			
23.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA

		<ul style="list-style-type: none"> ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Parties vulnerable for excessive noise levels such as residential areas, temple should be identified in advance and necessary measures as agreed with the Engineer should be implemented to mitigate the impact. ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
24.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
25.	Impacts due to	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to 	Engineering	Contractor	PMU/PIU/RDA/Consultant

	Vibration	<p>vibration.</p> <ul style="list-style-type: none"> ❖ Any parties vulnerable for excessive vibration residing along the road especially within residential areas and temple should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. ❖ Prior to commencement of compaction, excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 	Cost		Engineer, GSMB
26.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water way sand water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer CEA

		<p>standards set by the CEA.</p> <ul style="list-style-type: none"> ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 			
27.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
28.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. 			
29.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
30.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF

		<p>coming under DoF, and near to any other environment and social sensitive locations</p> <ul style="list-style-type: none"> ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 			
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health Inspector and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the Contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant EngineerMoH
32.	Prevention of Vector Borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.			
33.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfort ability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		meetings.			
35.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with respective authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
36.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>temporary works. In all such cases contractor shall take prior approval from the Engineer.</p> <ul style="list-style-type: none"> • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer..The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 			
39.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. • No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. <ul style="list-style-type: none"> • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. • Washing the vehicles should be conducted periodically to 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>prevent carrying any invasive species</p> <ul style="list-style-type: none"> The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 			
41.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/social related matters (Environmental and Social Safeguards Officer (ESSO)). All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
44.	Livelihood of the squatters	<ul style="list-style-type: none"> ❖ Implementation of recommendations of the ARAP 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
45.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at 	Engineering Cost	Contractor	RDA,/Consultant Engineer, PRDA

		<p>the contractor's expenses, to the entire satisfaction of the Engineer.</p> <ul style="list-style-type: none"> ❖ Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the Engineer for information. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 			
46.	Environmental Enhancement/Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
47.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA,/Consultant Engineer, PRDA
48.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Routine maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
49.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer
50.	Commercial units located within the existing ROW (Post monitoring of ARAP)	<ul style="list-style-type: none"> ❖ PMU will carry out consultations with owners of affected shops and discuss about their permanent relocation. ❖ The shop owners will be linked with relevant local authorities to (if necessary) for further assistance. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
12.03.2021	Grama Niladari, Modarawana	Female	<ul style="list-style-type: none"> • This road rehabilitation is very good. When rehabilitating the road, side drains and culverts also need to be improved. • Majority of the people in the village is Sinhalese and their religion is Buddhism. • Agriculture is the main source of livelihood of the people. Banana is the main agricultural crop other than paddy cultivation. Some people are employed in public and private sector jobs as well.
11.03.2021	Businessman	Male	<ul style="list-style-type: none"> • This road provides access to Embilipitiya - Middeniya Road (B 486). Therefore, it is important to develop this road. • Embilipitiya New Town is the nearest town. • In order to access various services such as education, employment, medical treatment and other administrative matters, people in this area often go to Embilipitiya New Town via this road. • Traders come to this area to buy agricultural produce such as banana and paddy.
11.03.2021	Businessman	Male	<ul style="list-style-type: none"> • This road provides access to Embilipitiya - Middeniya Road (B 486). Therefore, it is important to develop this road. • Embilipitiya New Town is the nearest town. • In order to access various services such as education, employment, medical treatments and other

			<p>administrative matters, people in this area often go to Embilipitiya New Town via this road.</p> <ul style="list-style-type: none"> • Traders come to this area to buy agricultural produce such as banana and paddy.
11.03.2021	Resident	Female	<ul style="list-style-type: none"> • This road development is very good. • There are houses and some shops either side of the road. During the construction period these people will be affected by dust. • Agriculture is the main livelihood activity of the people.
11.03.2021	Visitor	Male	<ul style="list-style-type: none"> • The existing road surface is damaged. • People transport their agricultural produce to the market by trucks, lorries and tractors. • Existing drains are insufficient, so drains need to be improved and new drains need to be constructed where necessary.

2.16. CESGP of SR 17 a & b - Hingura Ara Old Road & Road to Hingura Ara Village Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 17 a & b - Hingura Ara Old Road & Road to
Hingura Ara Village Road (2.8km)**

Codes of Environmental and Social Good Practice

Draft Final Report

June 2021

Background

HinguraAraOld Road and Road to Hingura village

Road length: 2.8Km

Coordinates: HinguraAra Old Road: Starting Point: 6°21'2.97"N, 80°50'4.54"E
End Point:6°20'57.95"N,80°50'24.71"E

Road to Hingura village: Starting Point: 6°21'12.74"N, 80°50'19.37"E
End Point: 6°21'33.99"N 80°50'26.97"E

Location:

District: Ratnapura

DS Division: Embilipitiya

EE Division: Embilipitiya

GN Divisions: Hingurana, KetagalaAra

1. Introduction

The HinguraAra Old Road (1.10km) starts at Pelmadulla - Embilipitiya Nonagama Road (A018) and provides a connection to Hingura Ara village road. This road is under the custody of Provincial Road Development Authority (PRDA).Sabaragamuwa Province. The existing average RoW of the road is around 8.0m and the average carriageway is 4.0m. Section A and B of the HinguraAra old road & Road to HinguraAra Village road traverse along a flat terrain and elevation of the trace varies between 83– 100m MSL.The existing surface of the road is damaged macadam, concreted and gravel. There are no protected areas located within or adjacent to the road trace.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.8 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 3 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be

erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the HinguraAra Old Road and Road to Hingura villageroad is around 8.0m and the average carriageway is 4.0m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA, Sabaragamuwa Province will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Sabaragamuwa PRDA will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits:

Embilipitiya Ceramic factory is located along the road. People frequently visit the factory for trading activities. The road development is important for these economic activities and for the residents.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Hingura Ara Old road & road to Higura Ara village Road will have low-negligible environmental and social impacts such as temporary loss of access to residents, common properties and the impact of dust, noise and vibration in minor level that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a Codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to occur.

7. Screening of Social Impacts

7.1 Project Impact Area

- Settlements: There are about 53 households and 05 small shops located on both sides of the road. The estimated population is 220, a majority of whom are Sinhala Buddhists
- **Land ownership:** There are no squatters along the road. All the lands are private and government lands.
- **Livelihoods:** Chena cultivation is the dominant agricultural practice in the area. Home gardens grown with minor cash crops also generate incomes for the residents. Some people are engaged in public and private sector jobs and self-employment.
- **Local organisations:** There are Farmer organisations in the area.
- **Community infrastructure and resources:** There is a cemetery and a Health centre located along the road (Table 1). During construction period, access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources:

Community infrastructure & resources	Location - GPS Coordinate		Chainage	Road side	Distance from RoW
Cemetery	6° 21.196'N	80° 50.267'E	0+440 (Section 1)	LHS	2.8m.
Health Center	6° 20.986'N	80° 50.411'E	1+100 (Section 1)	RHS	2.8m.

- **On-going development projects:** None

- **Visitors to the area:** Embilipitiya Ceramic factory is located along the road. People frequently visit the factory for trading activities.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of PRDA – Sabaragamuwa Province.
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		Land within the RoWis owned to PRDA – Sabaragamuwa Province. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development is carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	

Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a cemetery and Health centre located along the road (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Embilipitiya Police station which is 4.51km away from project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project
Sub-project: Hingura Ara old road & Road to Hingura Ara Village (No.17)
 Section (a): Hingura Ara Old Road (1.1km)
 Section (b): Road to Hingura Ara Village (1.7km)

Road length: 2.8km

Location:

Province: Sabaragamuwa Province
 District: Rathnapura District
 DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		✓	
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		An irrigation tank and a canal are located from 1.1 - 1.3km (LHS) of Section b. The irrigation canal comes to edge of the road at 6° 21.715'N, 80° 50.508'E. Site specific mitigation measures such as silt traps and silt fences shall be applied in order to minimize water quality impacts resulted

			due to civil works. Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Local air pollution will be slightly increased at crushing plant, batching plant, asphalt plant and construction site during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting is not necessary. Sensitive Receptors is given in the Screening Checklist to determine the level of Social impacts in the table on question 06. Noise and Vibration will be increased construction site during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards.
- Hazardous driving conditions where construction interferes with pre-existing roads?	✓		Some sections of the road surface are of damaged macadam, and concreted and gravel surfaces are eroded. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and	✓		Location of labor camps only at approved sites and continues labor

possible transmission of communicable diseases from workers to local populations?			supervision shall minimize these impacts
- Creation of temporary breeding habitats for mosquito vectors of disease?		✓	Stagnation of water in empty cans, containers, tyres etc shall be prevented and continuous site supervision shall minimize these impacts.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	-		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for laborers will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Hingura Ara Old Road (SR17 Section a)



Figure 5: Starting point of the road



Figure 2: Cemetery located at 0.440km on LHS of the road



Figure 3: Along the road



Figure 4: Public Health Centre located at 1.100km on LHS of the road



Figure 5: End point of the road

Photographs of Road to Higura Ara Village (SR17 Section b)



Figure 6: Starting point of the road



Figure 7: Along the road



Figure 8: End point of the road

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Hingura Ara old road & Road to Hingura Ara Village	
Risk Category assigned by E and S Screening	Low
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Public highlighted that runoff gets accumulated throughout the road even during a minor rain event due to absence of proper drainage facilities. Therefore it is recommended to improve drainage facility along the road.	<ul style="list-style-type: none"> • Section 3.2.20 of CESGP • Bridge design manual of RDA
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Codes of Environmental and Social Good Practice (CESGP)

Codes of Environmental and Social Good Practice (CESGP) for Rehabilitation of Hingura Ara Old Road and Road to Hingura Village Road (SR17)

1. Preamble

The following Codes of Environmental and Social Good Practice (CESGP) prepared for Hingura Ara old road and road to Hingura Ara Village of Ratnapura District should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to Sub-Contractors including nominated Sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the Contractors on behalf of the Employer the Project Implementation Consultant (PIC) also referred to as Engineer shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer (ESSO)** shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings convened by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESSO to be appointed is included in **Annex 1** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities (BOQ) prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements to be done during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements to be done during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his Sub-Contractor/s fails to implement the CESGP recommendations, after informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.
 - It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
 - The ESMS shall be updated every 3 months and submit for the Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1.Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction¹⁴.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed.

In such case;

¹⁴ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.

- ❖ The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.¹⁵
- ❖ Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- ❖ If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such trees shall be removed without prior written consent from the Engineer and endorsed by the community.
- ❖ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- ❖ All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- ❖ Compensatory plantation by way of Re-plantation of at least three times the number of trees cut (1:3) should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23).

3.1.3. Construction of labor camps where applicable

- ❖ The Contractor shall obtain prior written approval from the Engineer and the relevant local authority for the location, layout and facilities provided for labor camp prior to erection.
- ❖ The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- ❖ Separate accommodations should be provided for female labor with necessary facilities
- ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- ❖ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- ❖ Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- ❖ If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuisances or disturbances are caused to the local communities due to labor misconduct.
- ❖ Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

¹⁵ The RDA and Local Authority (LA) are required to ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

3.1.4. Planning of temporary Traffic arrangements

- ❖ Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- ❖ The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- ❖ The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- ❖ The Contractor shall source all borrow materials only from licensed sources.
- ❖ Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.
- ❖ Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the Engineer if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- A separate BOQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.

- ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- ❖ The Contractor shall take measures to make the residents and other stakeholders who are affected physically or by verbally aware of the possible impact caused by the works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ❖ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- ❖ The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead ways in the locations where required.
- ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- ❖ All efforts must be made to minimize the land donation for the project
- ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- ❖ Contractor shall identify locations where permanent access is blocked for construction.
- ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

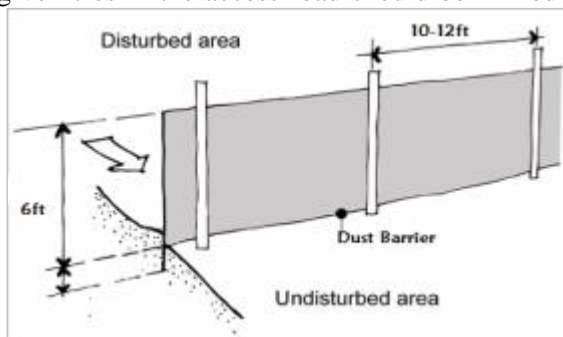
- ❖ Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- ❖ All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

- ❖ All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires (with measures to avoid water collection in them) or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- ❖ Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods.
- ❖ Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



(at



- ❖ The minimum height of barriers should be 6ft . Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- ❖ Dust masks should be provided to the laborers for the use at required times.
- ❖ Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- ❖ Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- ❖ All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- ❖ Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places (at 1.1km of Section a), schools during operating hours, public courts or any other affected nearby community. All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU.
- ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- ❖ Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors

- ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- ❖ Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include, the pre-school, places of worship and households.
- ❖ All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- ❖ The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- ❖ The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- ❖ The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- ❖ During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- ❖ The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- ❖ The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

- ❖ The Contractor should attempt to reuse the cut material from earthworks for project activities where possible



3.2.9. Control of Sedimentation and Soil Erosion

- ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- ❖ Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor (E.g: from 1.1 - 1.3km of Section b where irrigation canal is located on left hand side).
- ❖ To avoid siltation, drainage paths should not be directed to waterways and they should be separated from such water bodies
- ❖ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- ❖ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- ❖ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- ❖ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- ❖ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- ❖ Further Guidance on cost effective measures to follow are presented in **Annex III**.

3.2.10. Pollution from Fuel and Lubricants

- ❖ The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed off in accordance with standards set under the National Environmental Act or by the Central Environmental Authority of Sri Lanka/Ministry of Environment (CEA/MoE),
- ❖ Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)

- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- Notices to the public should be in all three languages
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.
- Basic onsite safety training should be conducted for all laborers during the EMP training prior to the start of the construction activities.
- All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.
- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Contractor should organize awareness campaigns for the local public on road safety at least twice during the construction phase



3.2.12. Safety Gear for Labors

- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.



- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.
- Notices to all laborers should be displayed in all three languages
- All laborers should be made aware about labor GRM and they should have convenient access to GRCs

3.2.13. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.



3.2.14. Presence of Outside Labor in a Residential Area

- Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper hand washing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfort ability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- Avoid or reduce labor influx where possible. Explore possibility of introducing a requirement to hire local labor (at least a percentage) by the contractor. This should be done through the

Community Based Organizations (CBOs) in the area that will be affected by the project interventions.

- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce – on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
- Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
- A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
- The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.22. Tree Re-Planting

- Re-plantation of at least thrice (1:3) the number of trees cut should be carried out along the project road.
- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years .
- Survival status shall be reported on monthly basis to the Engineer.

3.2.23. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.

3.2.24. Management of Contractor Operated Quarry and Borrow Sites

3.2.24.1. Borrowing of Earth and Management of Self Operated Borrow Sites

- In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in **Annex II** of the CESGP.

3.2.24.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be operated with a valid IML EPL and trade license
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor's operations shall be a responsibility of the Contractor .
- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.25. Procedures for Dealing with Chance Finds

3.2.25.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.

- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.25.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.26. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review public complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the ESSO on complaints thereof.
- A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- ❖ Trafficking of children (forced/bonded labour) is prohibited under the project.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- ❖ Contractor shall not employ workers below the age of 14 years
- ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.

- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

- The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	Grama Niladari, Hingura ara	Male	<ul style="list-style-type: none"> • The existing road surface is damaged, so this road development is very good. • Majority of the people living along the road is Sinhalese. Buddhism is the religion of this population. • Chena cultivation is the main agricultural practice in the area. Some people are employed in public and private sector jobs and self-employment.
11.03.2021	Road User	Male	<ul style="list-style-type: none"> • Embilipitiya Ceramic factory and nail factory are located along the road. Traders frequently visit these factories for trading activities. • During the construction period access to houses and commercial institutes located on either side of the road will be affected. • The transportation will be improved after road development.
11.03.2021	Resident	Female	<ul style="list-style-type: none"> • This road is very important road, because this road provides access to Pelmadulla - Embilipitiya Nonagama Road (A018) • Road development will be more advantageous for school children and other road users. • Majority of the people living along the road are Sinhalese.

2.17. CESGP of SR 18 Road from Hingura Ara to Ketagal Ara



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 18 - Road from Hingura Ara to Ketagal Ara
(1.45km)**

Codes of Environmental and Social Good Practice

Draft Final Report

June 2021

Background

Road from Hingura to KetagalAra

Road length: 1.45Km

Coordinates: Starting Point 6°21'3.88"N, 80°50'23.22"E

End Point 6°21'24.56"N, 80°50'54.22"E

Location:

District: Ratnapura

DS Division: Embilipitiya

EE Division: Embilipitiya

GN Divisions: KategalAra and HinguraAra

1. Introduction

The road from Hingura to Ketagal Ara (1.5km) starts from Old HiguraAra road provides access to settlements. This road is under the custody of the Provincial Road Development Authority (PRDA – Sabaragamuwa Province). The surface of the road is damaged macadam and gravel. The road traverses along a flat terrain and elevation of the trace varies between 78– 96m MSL. The road ends at irrigation canal in KetagalAra (Bridge) at 6° 21'348"N and 80° 50'770"E. The road does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 1.45 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e. RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural

road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Road from Hingura to KetagalArais around 7.5m and the average carriageway is 4.1m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA, Sabaragamuwa Province will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA – Sabaragamuwa Province will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

Banana cultivation is popular in the project area. The traders visit the area to buy these agricultural produces. The road development will facilitate convenience for the residents and transportation of agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location).The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, This subproject i.e. Road from Hingura Ara to Ketagal Ara will have low-negligible environmental and social impacts such as drainage issues, noise and vibration and loss of access that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements: There are about 49 households and 10 small shops located on both sides of the road with an estimated population of 225 persons. They are Sinhala Buddhists.

- **Land ownership:** There are no squatters along the road. All the lands are private and government.
- **Livelihoods:** Banana is the dominant cultivation in the area. Paddy and coconut are the other agricultural crops. Some people are engaged in public and private sector jobs as well.
- **Local organisations:** There are Rural Development Societies functioning in the area.
- **Community infrastructure and resources:** There is a Buddha shrine and one school located along the road (Table 1). During construction period, access to these places will be disturbed. In order to mitigate this impact temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location - GPS Coordinate		Road side	Distance from RoW
Buddha Shrine	6° 21.327'N	80° 50.698'E	LHS	1.6m
KetagalAraVidyalaya	6° 21'21.90"N	80° 50' 48.37"E	RHS	1.5m

- **On going development projects:** None

- **Visitors to the area:** Visitors come to project area for trading activities of agricultural produces. Teachers from other nearby villages use this road to reach the KatagalAra school.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains donot exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of PRDA – Sabaragamuwa Province
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		✓		Land within the RoW is owned to PRDA – Sabaragamuwa Province. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected people as the development work will becarried out within the existing RoW.

Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?				There is a Buddha shrine and a school located along the road (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Embilipitiya Police station which is 4.65km away from project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.

outside the project area?				
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project

Sub-project: Road from Hingura Ara to Ketagal Ara (No.18)

Road length: 1.45km

Location:

Province: Sabaragamuwa

District: Rathnapura

DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		✓	
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Irrigation canal (Ketagal Ara) is crossed by the road at 6° 21.348'N and 80° 50.770'E. Site specific mitigation measures shall be applied in order minimize water quality impacts resulted due to civil works. Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.

<p>- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?</p>	<p>✓</p>		<p>Local air pollution will be slightly increased at crushing plants, Batching plant, and asphalt plant and construction site during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.</p>
<p>- Noise and vibration due to blasting and other civil works?</p>	<p>✓</p>		<p>Blasting is not necessary.</p> <p>Sensitive Receptors found along the road are given in the screening checklist to determine the level of Social impacts in the table under question 06. Noise and Vibration will be increased at construction sites during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.</p>
<p>- Dislocation or involuntary resettlement of people</p>		<p>✓</p>	
<p>- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?</p>	<p>✓</p>		<p>The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards.</p>
<p>- Hazardous driving conditions where construction interferes with pre-existing roads?</p>	<p>✓</p>		<p>Some sections of the road surface are of damaged macadam. There are two sharp bends at 0.6km and 0.9km. Road signal boards shall be applied at necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction</p>

			vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts
- Creation of temporary breeding habitats form mosquito vectors of disease?	✓		Stagnation of water in empty cans, containers, tyres etc shall be prevented and continues site supervision shall minimize these impacts.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles. Health and safety regulations under the factory ordinance with regard to provision of health and safety measures and amenities at work place shall be comply.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments;

Appendix 1: Photographs

Appendix 2: Location map

Appendix 1 - Photographs of Road from Hingura Ara to Ketagal Ara



Plate 1: Starting point of the road



Plate 2: Along the road

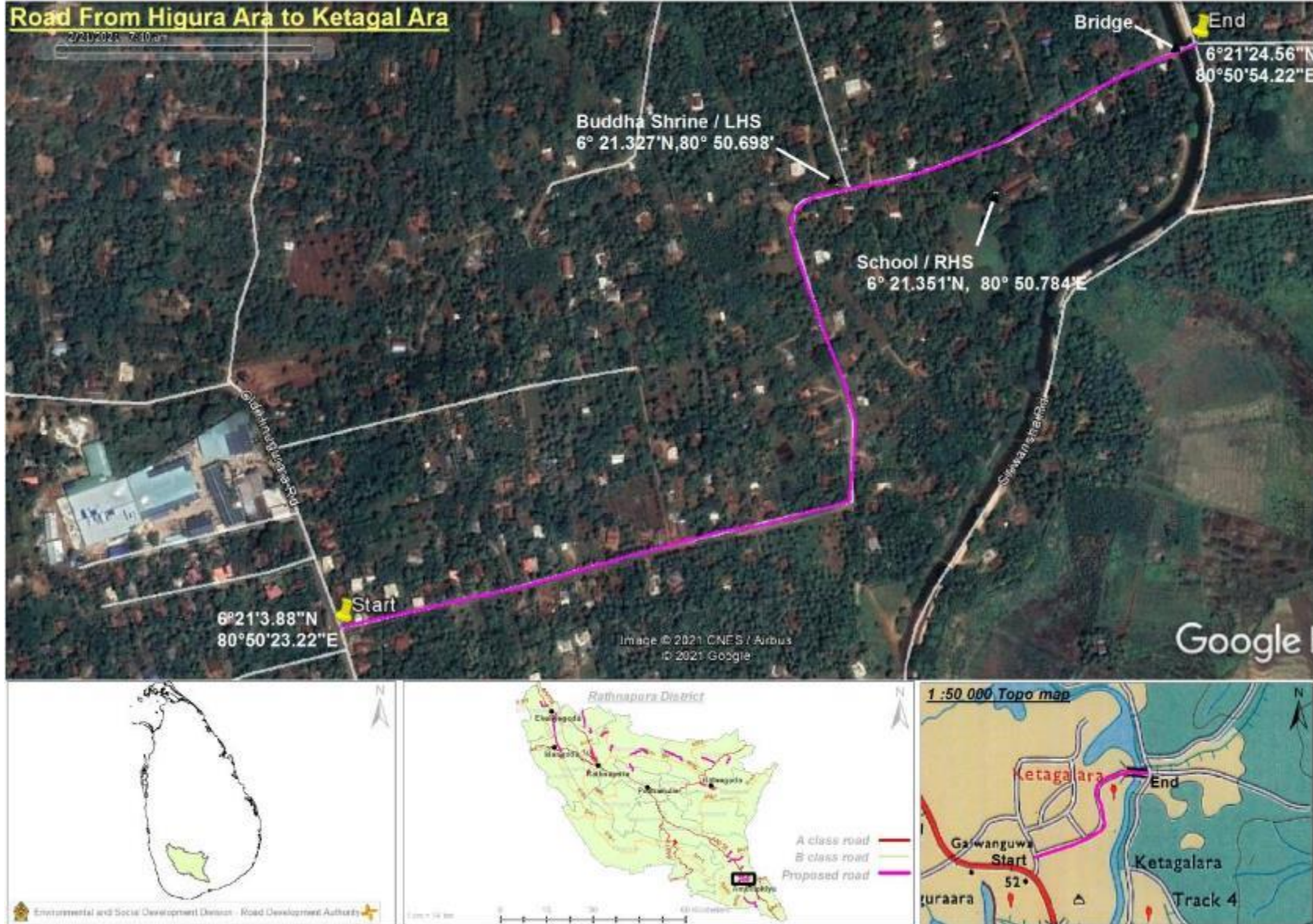


Plate 3: Along the road



Plate 4: End point of the road

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Road from Hingura Ara to Ketagal Ara	
Risk Category assigned by E and S Screening	Low risk
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Side drains directed to the irrigation canal are recommended to have silt traps in adequate capacity with other silt control measures.	<ul style="list-style-type: none"> Section 3.2.9 of CESGP
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Codes of Environmental and Social Good Practice (CESGP)

1. Preamble

The following Codes of Environmental and Social Good Practice (CESGP) prepared for Road from Hingura Ara to Ketagal Ara of Ratnapura District should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to Sub-Contractors including nominated Sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the Contractors on behalf of the Employer the Project Implementation Consultant (PIC) also referred to as Engineer shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer (ESSO)** shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings convened by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESSO to be appointed is included in **Annex 1** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities (BOQ) prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements to be done during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements to be done during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his Sub-Contractor/s fails to implement the CESGP recommendations after informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with during the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.

- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.
- It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
 - The ESMS shall be updated every 3 months and submit for the Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1.Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;;

- The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction¹⁶.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed. In such case;

- ❖ The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.¹⁷
- ❖ Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- ❖ If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such

¹⁶ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.

¹⁷ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

trees shall be removed without prior written consent from the Engineer and endorsed by the community.

- ❖ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- ❖ All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- ❖ Compensatory plantation by way of Re-plantation of at least thrice the number of trees cut should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23).

3.1.3. Construction of labor camps where applicable

- ❖ The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- ❖ The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- ❖ Separate accommodations should be provided for female labor with necessary facilities
- ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- ❖ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- ❖ Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- ❖ If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuisances or disturbances are caused to the local communities due to labor misconduct.
- ❖ Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- ❖ Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- ❖ The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- ❖ The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- ❖ The Contractor shall source all borrow materials only from licensed sources.
- ❖ Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.

- ❖ Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the Engineer if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- A separate BOQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable.
- ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- ❖ The Contractor shall take measures to make the residents and other stakeholders who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ❖ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- ❖ The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.
- ❖ Notices to the public should be displayed in all three languages

3.1.9. Land donation

- ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- ❖ All efforts must be made to minimize the land donation for the project
- ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- ❖ Contractor shall identify locations where permanent access is blocked for construction.
- ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

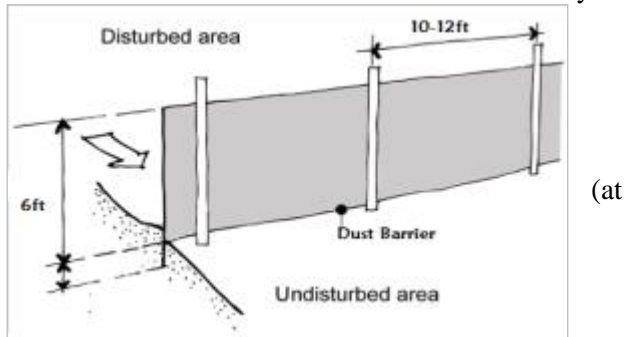
- ❖ Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- ❖ All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

- ❖ All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires (with measures to avoid water collection in them) or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- ❖ Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four times a day) as the levels of dust can be elevated during dry periods.
- ❖ Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial, residential areas and other sensitive areas such as schools (Ketagal Ara School).



- ❖ The minimum height of barriers should be 6ft . Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- ❖ Dust masks should be provided to the laborers for the use at required times.
- ❖ Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- ❖ Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools (Ketagal Ara School) and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- ❖ All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette

Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.

- ❖ Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- ❖ Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors (E.g. Ketagal Ara School)

- ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- ❖ Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include, the schools, pre-school, places of worship and households.
- ❖ All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- ❖ The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- ❖ The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- ❖ The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- ❖ During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.

- ❖ The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.

- ❖ The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

- ❖ The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- ❖ Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor (E.g. Ketagal Ara irrigation canal).
- ❖ To avoid siltation, drainage paths should not be directed to waterways and they should be separated from such water bodies
- ❖ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- ❖ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- ❖ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- ❖ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- ❖ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.



- ❖ Further Guidance on cost effective measures to follow are presented in **Annex III**.

3.2.10. Pollution from Fuel and Lubricants

- ❖ The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed off in accordance with standards set under the National Environmental Act or by the Central Environmental Authority of Sri Lanka/Ministry of Environment (CEA/MoE),
- ❖ Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)
- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- Notices to the public should be displayed in all three languages
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.
- Basic onsite safety training should be conducted for all laborers during the EMP training prior to the start of the construction activities.
- All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.
- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours



from the site to ensure public safety.

- Contractor should organize awareness programs for the local public on Road Safety and at least two programs should be conducted during the construction period

3.2.12. Safety Gear for Labors

- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.



- All laborers should be made aware about labor GRM and they should have convenient access to Labor GRCs

3.2.13. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.



3.2.14. Presence of Outside Labor in a Residential Area

- Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper hand washing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfort ability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential

reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- Avoid or reduce labor influx where possible. Explore possibility of introducing a requirement to hire local labor (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce – on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
- Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
- A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
- The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.22. Tree Re-Planting

- Re-plantation of at least thrice (1:3) the number of trees cut should be carried out along the project road.

- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- Survival status shall be reported on monthly basis to the Engineer.

3.2.23. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.

3.2.24. Management of Contractor Operated Quarry and Borrow Sites

3.2.24.1. Borrowing of Earth and Management of Self Operated Borrow Sites

- In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in **Annex II** of the CESGP.

3.2.24.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be operated with a valid IML EPL and trade license
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor s operations shall be a responsibility of the Contractor .

- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.25. Procedures for Dealing with Chance Finds

3.2.25.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.25.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.26. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the Environmental Officer on complaints thereof.
- A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- ❖ Trafficking of children (forced/bonded labour) is prohibited under the project.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- ❖ Contractor shall not employ workers below the age of 14 years

- ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the Engineer.
- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

- The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	Framer	Male	<ul style="list-style-type: none">• Majority of the people are living along the road are Sinhalese. Buddhism is the religion of this population.• Banana is the main cultivation in the area. Paddy and coconut are the other crops cultivated.• Visitors come to this area for trading activities of agricultural produce. Teachers from nearby village come to Katagala Ara school.
11.03.2021	Businessman	Male	<ul style="list-style-type: none">• We need a good road. This road is in a dilapidated condition, so this road development is very good.• Vehicles get damaged due to road condition.• During the road construction period dust, noise, and vibration issues will arise.

2.18. CESGP of SR 19 Kalagedi Ara Nuge Cross Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 19 - Kalagedi Ara Nuge Cross Road (1.0km)**

Codes of Environmental and Social Good Practice

Draft Final Report

June 2021

Background

KalagediAra NugeCross Road

Road length:1.0km

Coordinates: Starting Point 6°20'16.27"N6°20'49.72"N
End Point 80°52'36.43"E80°52'37.43"E

Location:

District: Ratnapura
DS Division: Embilipitiya
EE Division: Embilipitiya
GN Divisions: Moaraketiya and Kalagedi-Ara

1. Introduction:

The KalagediAra NugeCross Road (1.0km) starts from Embilipitiya Moraketiya Kiriibban Ara Mau Ara road and provides access to settlements. This road is under the custody of Embilipitiya Urban Council. The surface of the road is concrete and damaged macadam. The road traverses along a flat terrain and elevation of the trace varies between 57– 72m MSL. The road does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 1 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), drains 450mm as required. Construction period for this road is estimated as 1 month.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road.The existing average RoW of the Kalagedi Ara Nuge Cross Road is around 10m and the average carriageway is 3.7m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Urban Council(Local authority) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-

Aways...etc. Further, a representative from Embilipitiya Urban Council will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The residents in the project area welcomed the development project. The traders visit the project area to buy agricultural produce. Thus, the road development will benefit the residents and facilitate the transportation of agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Kalagedi Ara Nuge Cross Road will have low-negligible environmental impacts such as drainage impacts, noise and vibration impacts to the school (temporary) and temporary loss of access that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** There are about 49 houses and 04 small shops located on both sides of the road. The population is around 200. They are Sinhala Buddhists.
- **Land ownership:** There are no squatters along the road. All the lands are private and government lands.

- **Livelihoods:** Chena cultivation is the main agricultural activity in the area and the source of income for people. There are home gardens with grown with coconut, pepper and banana cultivations. Some people are engaged in public and private sector jobs as well.
- **Local organisations:** There is a Rural Development Society in the area.
- **Community infrastructure and resources:** There is a Cemetery (Table 1). During construction period, access to the cemetery will be disturbed. In order to mitigate this impact, the temporary access will be provided. Permanent access will be restored after construction activities.

Table 1:Community infrastructure and resources

Community infrastructure & resources	Location - GPS Coordinate		Road side	Distance from RoW
Cemetery	6° 20.575'N	80° 52.612'E	RHS	3.7m

- **O n-going development projects:** None
- **Visitors to the area:** People from outside come to the project area to buy agricultural produce.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Urban Council(Local Authority)
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		Land within the RoW is owned to Embilipitiya Urban Council. This

				land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a Cemetery along the road as shown in Table 1.
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Embilipitiya Police Station which is 4.5km away from project area.

Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project

Sub-project: Kalagedi Ara Nuge cross Road (No.19)

Road length: 1.0km

Location:

Province: Sabaragamuwa Province

District: Rathnapura District

DS Division: Embilipiya Divisional Secretary Division

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		✓	
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?		✓	
- Increased local air pollution due to rock crushing, cutting and filling	✓		Local air pollution will be slightly increased at crushing

works, and chemicals from asphalt processing?			plant, batching plant, asphalt plant and construction sites during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting is not necessary. Sensitive Receptors is given in the screening checklist to determine the level of social impacts in the table on question 06. Noise and Vibration will be increased construction site during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards.
- Hazardous driving conditions where construction interferes with pre-existing roads?	✓		Some sections of the road surface are of damaged macadam and concreted. Road signal boards shall be applied in necessary locations to

			minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats form mosquito vectors of disease?	✓		Stagnation of water in empty cans, containers, tyres etc shall be prevented and continues site supervision shall minimize these impacts.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for laborers will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of road from Kalagedi Ara Nuge cross Road



Figure 1: Starting point of the road



Figure 2: Settlements located on both sides of the road



Figure 3: Along the road

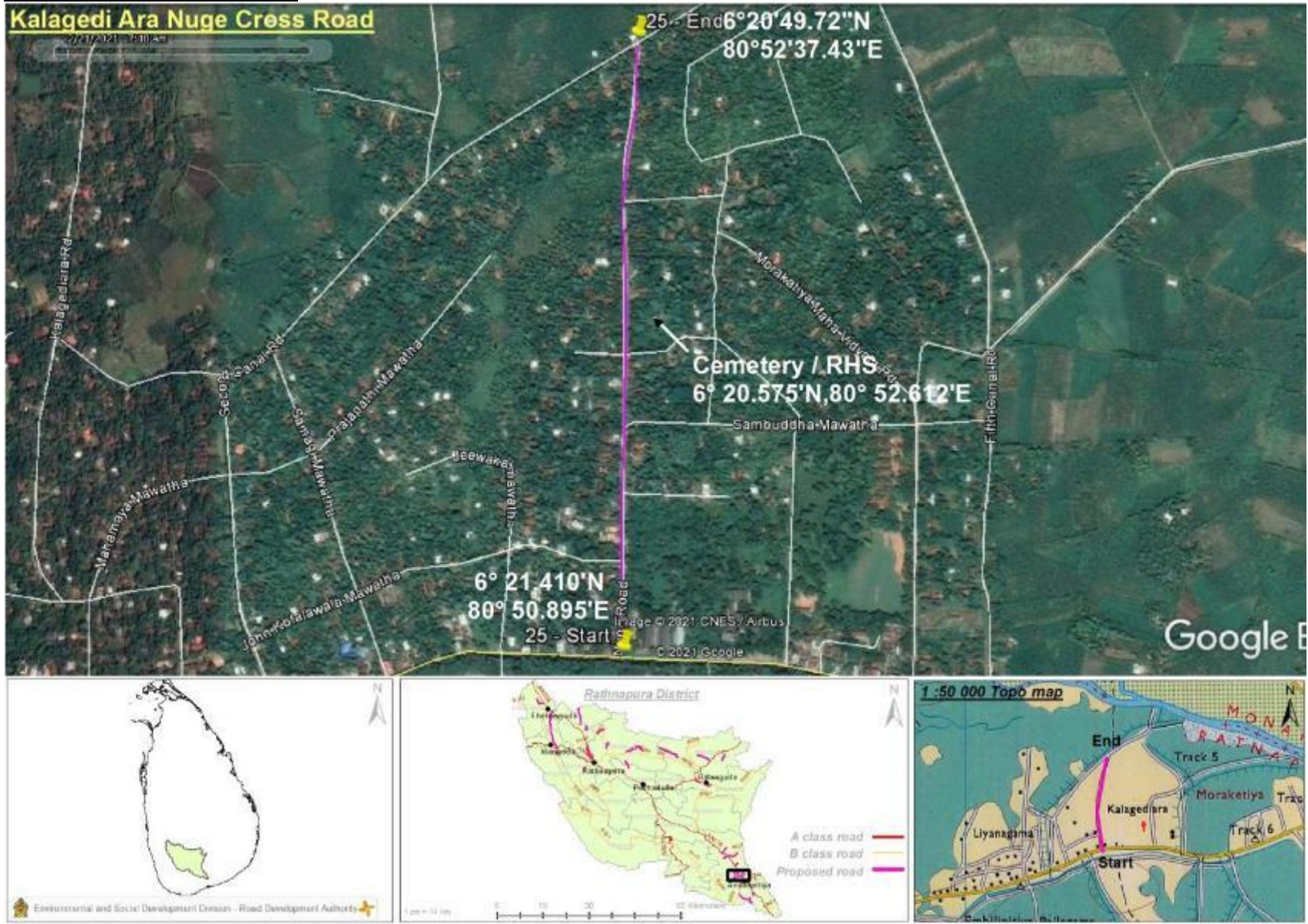


Figure 4: Cemetery located at 0.550 on RHS of the road



Figure 5: End point of the road

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Kalagedi Ara Nuge cross Road	
Risk Category assigned by E and S Screening	Low risk
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Public highlighted that runoff gets accumulated throughout the road even during a minor rain event due to absence of proper drainage facilities. Therefore it is recommended to introduce side drains etc. to improve the drainage along the road.	<ul style="list-style-type: none"> • Section 3.2.20 of CESGP • Bridge design manual of RDA
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Codes of Environmental and Social Good Practice (CESGP)

1. Preamble

The following Codes of Environmental and Social Good Practice (CESGP) prepared for Kalagedi Ara Nuge Cross Road of Ratnapura District should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to Sub-Contractors including nominated Sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the Contractors on behalf of the Employer the Project Implementation Consultant (PIC) also referred to as Engineer shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer (ESSO)** shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings convened by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESSO to be appointed is included in **Annex I** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities (BOQ) prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements to be done during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements to be done during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his Sub-Contractor/s fails to implement the CESGP recommendations. After informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.

- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.
 - It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
 - The ESMS shall be updated every 3 months and submit for the Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1. Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;;

- The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction¹⁸.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed. In such case;

- ❖ The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.¹⁹
- ❖ Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- ❖ If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to

¹⁸ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.

¹⁹ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

understand the due process to be followed and agreement made with the community. No such trees shall be removed without prior written consent from the Engineer and endorsed by the community.

- ❖ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- ❖ All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- ❖ Compensatory plantation by way of Re-plantation of at least thrice the number of trees cut should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23).

3.1.3. Construction of labor camps where applicable

- ❖ The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- ❖ The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- ❖ Separate accommodations should be provided for female labor with necessary facilities
- ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- ❖ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- ❖ Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- ❖ If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuisances or disturbances are caused to the local communities due to labor misconduct.
- ❖ Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- ❖ Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- ❖ The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- ❖ The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- ❖ The Contractor shall source all borrow materials only from licensed sources.

- ❖ Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.
- ❖ Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the Engineer if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- A separate BOQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable.
- ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- ❖ The Contractor shall take measures to make the residents who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ❖ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- ❖ The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead ways in the locations where required.
- ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- ❖ All efforts must be made to minimize the land donation for the project
- ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- ❖ Contractor shall identify locations where permanent access is blocked for construction.
- ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

- ❖ Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- ❖ All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

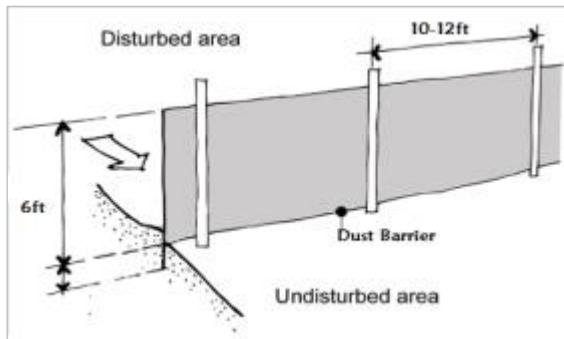
3.2.2. Management of Dust and Fugitive Emissions

- ❖ All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires (with measures to avoid

water collection in them) or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- ❖ Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four times a day) as the levels of dust can be elevated during dry periods.
- ❖ Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



(at



- ❖ The minimum height of barriers should be 6ft . Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- ❖ Dust masks should be provided to the laborers for the use at required times.
- ❖ Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- ❖ Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.

- ❖ All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- ❖ Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- ❖ Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors

- ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- ❖ Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include, the pre-school, places of worship and households.
- ❖ All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- ❖ The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- ❖ The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- ❖ The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- ❖ During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- ❖ The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- ❖ The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

- ❖ The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked.

- ❖ Silt traps shall be constructed to avoid siltation into the water ways. where necessary along the road corridor.
- ❖ To avoid siltation, drainage paths should not be directed to waterways and they should be separated from such water bodies
- ❖ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- ❖ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- ❖ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- ❖ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- ❖ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- ❖ Further Guidance on cost effective measures to follow are presented in **Annex III**.



3.2.10. Pollution from Fuel and Lubricants

- ❖ The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed off in accordance with standards set under the National Environmental Act or by the Central Environmental Authority of Sri Lanka/Ministry of Environment(CEA/MoE),
- ❖ Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)

- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.
- Basic onsite safety training should be conducted for all laborers during the EMP training prior to the start of the construction activities.
- All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.
- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Notices to the public and workers should be displayed in all three languages
- Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.
- All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.



3.2.12. Safety Gear for Labors

- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.



- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.

3.2.13. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.



3.2.14. Presence of Outside Labor in a Residential Area

- Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.

- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper hand washing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfort ability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated into the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- Avoid or reduce labor influx where possible. Explore possibility of introducing a requirement to hire local labor (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce – on unacceptable conduct

- Informing workers about national laws
- Worker Code of Conduct as part of the employment contract
- Introduce sanctions for non-compliance (e.g., termination)
- Cooperation with law enforcement agencies
- Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
- A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
- The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.22. Tree Re-Planting

- Re-plantation of at least thrice (1:3) the number of trees cut should be carried out along the project road.
- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- Survival status shall be reported on monthly basis to the Engineer.

3.2.23. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.

3.2.24. Management of Contractor Operated Quarry and Borrow Sites

3.2.24.1. Borrowing of Earth and Management of Self Operated Borrow Sites

- In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in **Annex II** of the CESGP.

3.2.24.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be operated with a valid IML EPL and trade license
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor's operations shall be a responsibility of the Contractor.
- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.25. Procedures for Dealing with Chance Finds

3.2.25.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.25.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.26. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the Environmental Officer on complaints thereof.
- A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- ❖ Trafficking of children (forced/bonded labour) is prohibited under the project.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- ❖ Contractor shall not employ workers below the age of 14 years
- ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.
- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

- The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
12.03.2021	GramaNiladari, Kalagedi Ara	Female	<ul style="list-style-type: none">• Majority of the people living along the road are Sinhalese. Buddhism is the religion of this population.• Chena cultivation is the main agricultural practice in the area. There are home gardens cultivated with coconut, pepper and banana.• There is a Rural Development Society in the area.
11.03.2021	Resident	Female	<ul style="list-style-type: none">• This road Development is very good. A large number of vehicles are traversing on this road dialy.• Chena cultivation is practiced well. Along this road people transport their agricultutal produce to market by trucks, lorries and tractors.• Roadside drains need to be provided where necessary and they should be properly maintained.
11.03.2021	Businessman	Male	<ul style="list-style-type: none">• We need a good road. This road is in dilapidated condition, so this road development is very good.• During the construction period dust will be the major impact.• Traders come to this village to buy agricultural produce.

2.19. ESMP of SR 20 - Chandrika Wewa Outer Circular Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Rehabilitation and Improvement of
SR 20 - Chandrika Wewa Outer Circular Road
(1.15km)**

**Environmental and Social Management Plan
(ESMP)**

Draft Final Report

June 2021

Background

Chandrika Wewa outer Circular Road

Road length: 1.15km

Coordinates: Starting Point 6°18'14.58"N, 80°52'13.86"E
End Point 6°17'40.05"N, 80°52'21.19"E

Location:

District: Ratnapura

DS Division: Embilipitiya

EE Division: Embilipitiya

GN Divisions: Halmillaketiya

1. Introduction

The Chandrika Wewa Outer Circular Road(1.1km) starts at Pelmadulla- Embilipitiya- Nonagama Road (A18) and ends at Middeniya road. This road is under the custody of Embilipitiya Urban Council. The surface of the road is concrete and damaged macadam. The first 350 m on the right-hand-side (RHS) of the road runs parallel to the Chandrika Wewa reservoir bund while the rest of the road traverses beside the residential areas and a complex of government offices. The road also traverses along a flat terrain and the elevation of the trace varies between 64– 76Im MSL. The road does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 1.1 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as one (1) month.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Chandrika Wewa Outer Circular Road is around 9.4m and the average carriageway is 3.5m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Urban Council (Local authority) will provide coordination support by attending to any public

requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Embilipitiya Urban Council will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the area is popular for recreational activities. The road also serves as a circular road for A018 and Middeniya Road.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021, and to collect all available information, and take photographs (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists, and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 4 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Chandrika Wewa outer Circular Road will have a majority of reversible, small-medium scale environmental and social impacts. The main social impact will be possible physical/economic displacement to the three small shop located within the existing ROW. The other impacts are temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures and preparation of ARAP, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** There are about 48 households and 07 small shops located on both sides of the road. The estimated population is 210. They are all Sinhala Buddhists by ethnicity and religion.

- **Land ownership:** All lands are under the private and government ownership. There are three small shops run by squatters which are located within the existing RoW.

(A) Fruit and Lottery stall of Mrs. K.G. Priyanthi

This shop is located at the edge of the RoW. The existing RoW at this location is 9.5m and the distance from edge of the carriage way to shop is 1.8m. The proposed road improvements include a carriage way of 3.5m, shoulder of 0.5m x 2 and drains of 0.45m as required. Therefore, shop will not be affected according to design details.

(B) Fish stall of Mr. H.P.D. Athula Samansiri

This shop is located at the edge of the RoW. The existing RoW at this location is 9.5m and the distance from edge of the carriage way to shop is 1.45m. The proposed improvements include a carriage way of 3.5m, shoulder of 0.5m x 2 and drains of 0.45m as required. Therefore, shop will not be affected according to design details.

(C) Fruit stall of Mr. W.R. Sarath

This shop is located in the RoW, about 0.5m from the carriageway. The existing RoW at this location is 9.5m. As the shop is located closer to the carriageway, shop will be affected by civil works of shoulder improvements. The owner is willing to shift back the structure for his own land which is behind his shop.

In order to mitigate the impact and avoid any income loss to the fruit stall owner, the project will follow a five step process.

Step 1: Inform the owner prior to construction activities.

Step 2: Building a temporary structure in his own land while continuing the business at the original location.

Step 3: Relocate the business with the labor assistance from RDA prior to construction activities of the road.

Step 4: Monitor the income of the affected person

Step 5: Let the person to continue the business in his own land after road construction. Refer Annex 3 for details.

- **Livelihoods:**
The chena cultivation and inland fishery are the main livelihood sources of the people in the project area. Some other people are engaged in wage labour and public and private sector jobs.
- **Local organisations:** There is a Fishery society in the area.

- **Community infrastructure and resources:** There's a Bo tree with Buddha shrine along the road. Details are provided in Table 1. During construction period, access to this place will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after the construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location - GPS Coordinate		Road side	Chain-age	Distance
Bo tree with Buddha Shrine	6° 17.999'N	80° 52.301'E	LHS	0+515km	Edge of the ROW - 1.4m from the edge of the carriageway

- **On-going development projects:** None
- **Visitors to the area:** The area is popular among local tourists for recreational activities. There is also a weaving centre at 0+485km (RHS) in the project area.

7.2. Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Urban Council (Local Authority).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		Land within the RoW is owned to Embilipitiya Urban Council. This land is used for the road. Three small shops are located within the existing RoW. Details are provided in Annex 3.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				

Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)		✓		There are three temporary shops/huts located within the existing RoW. Refer Annex 3 for details.
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		One squatter will have a direct impact from road construction. Refer Annex 3 for details.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There's a Bo tree with a Buddha shrine in the vicinity as shown in Table 1
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Embilipitiya Police station which is 5.35km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be

				recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is a possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		Workers will be from similar socio-economic background.
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	One squatter within the existing RoW may be affected.
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province

Sub-project: Chandrika Wewa Outer Circular Road (SR20)

Location: District: Rathnapura

DS Division: Embilipitiya

Road Length: 1.15km

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the			

following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		✓	
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?		✓	
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Local air pollution will be slightly increased at crushing plants, batching plant, asphalt plant and construction site during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting is not necessary. Sensitive Receptors is given in the screening checklist to determine the level of Social impacts in the table on

			question 06. Noise and vibration will be increased construction site during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards
- Hazardous driving conditions where construction interferes with pre-existing roads?	✓		Some sections of the road surface are of damaged macadam and concreted. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Stagnation of water in empty cans, containers, tyres etc shall be prevented and continues site supervision shall minimize these impacts.

<p>- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?</p>	<p>✓</p>		<p>Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for laborers will mitigate these impacts.</p>
<p>- Increased noise and air pollution resulting from traffic volume?</p>	<p>✓</p>		<p>This road facilitates easy access to Pelmadulla - Embilipitiya - Nonagama Road(A 018) road from Middeniya road. Consequently road traffic volume will be increased when the road is rehabilitated.</p>
<p>- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?</p>		<p>✓</p>	<p>Waste water from vehicle station, Plant maintenance and servicing stations shall be treated to meet relevant standards so that they will be free from oil, grease and other contaminants.</p>

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map

Appendix 3: Information on Encroachers/Squatters

Appendix 1- Photographs of Chandrika Wewa Outer Circular Road



Figure 1: Starting point of the road



Figure 2: Along the road



Figure 3: Along the road

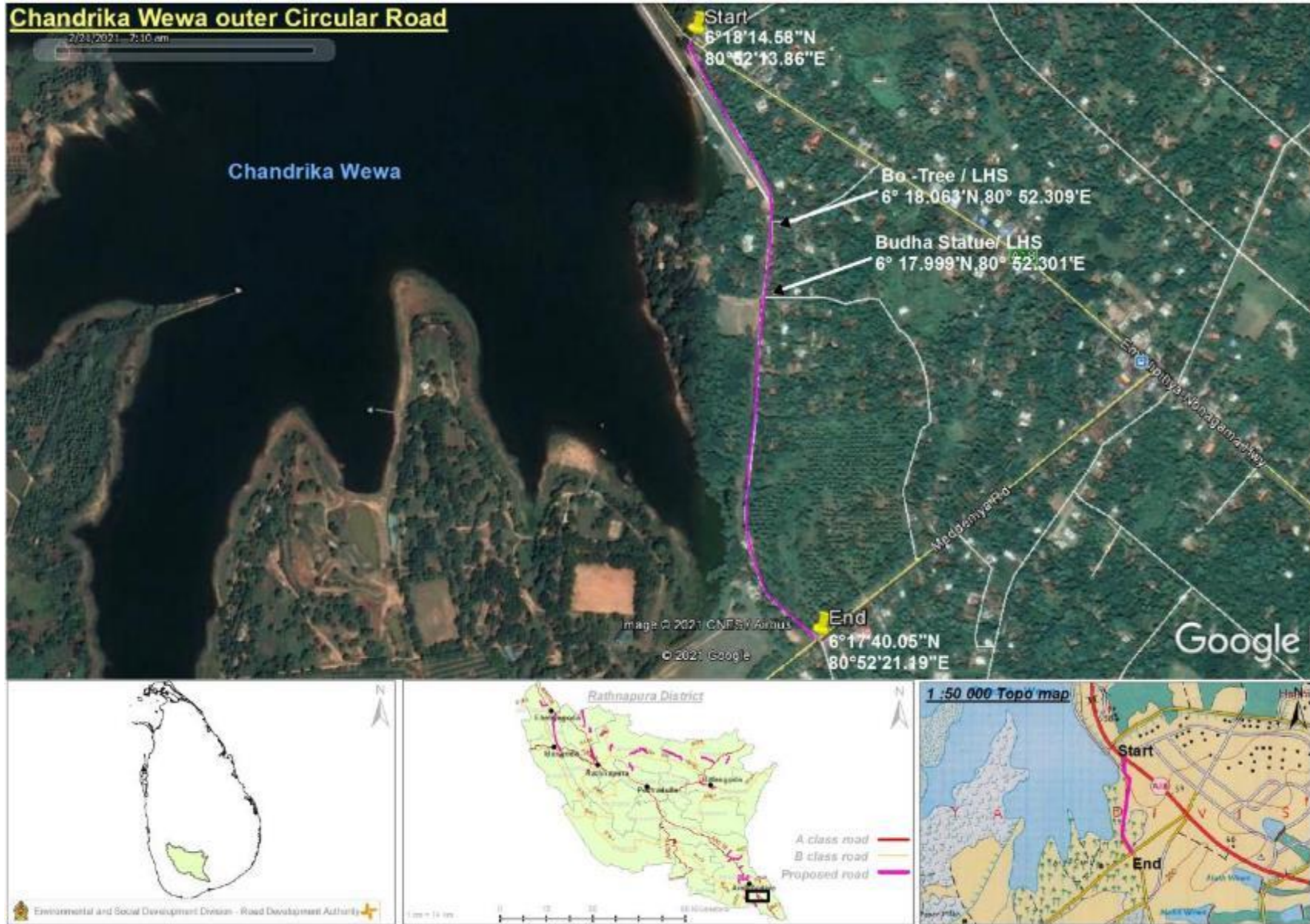


Figure 4: Bo tree and Buddha statue located at 0.38km on LHS of the road



Figure 5: End point of the road

Appendix 2 – Location Map



Appendix 3: Information on Encroachers/Squatters


Photo	Coordinate	Distance to the carriageway	Description	Proposed improvement to the road	Impact and mitigation
	<p>06°18.243"N 080°52.255"E</p>	<p>1.85m from the edge of the carriage way at 0.000km on RHS</p>	<p>Owner of the small shop is Mrs. K.G. Priyanthi. She is selling fruits and lotteries. Her daily income is about Rs. 1500-2000. This is her only income source. There are 04 family members in her family. She is doing this business for 05 months.</p>	<p>Carriageway - 3.5m Shoulder - 0.5m (both sides) Drains as required.</p>	<p>The shop is located at the edge of the RoW which is 9.5m. The improvement for the road is 4.5m excluding drains. Thus, the shop will not be affected. However, there will be temporary impacts such as dust, noise and vibration during construction. These temporary impacts will be mitigated through regular sprinkling of water and by managing noise and vibration levels generated due to civil works within the particular standards.</p>



Photo	Coordinate	Distance to the carriageway	Description	Proposed improvement to the road	Impact and mitigation
	<p>06°18.068"N 080°52.309"E</p>	<p>1.45m from the edge of the carriage way at 0.381km on LHS</p>	<p>Owner of the small shop is Mr. H.P.D. AthulaSamansiri. He is selling fresh water fish. His monthly income is about Rs. 25,000. There are 04 family members in his family. He is doing this business for 2 years.</p>	<p>Carriageway - 3.5m Shoulder - 0.5m (both sides) Drains as required.</p>	<p>The shop is located at the edge of the RoW which is 9.5m. The improvement for the road is 4.5m excluding drains. Thus, the shop will not be affected. However, there will be temporary impacts such as dust, noise and vibration during construction. These temporary impacts will be mitigated through regular sprinkling of water and by managing noise and vibration levels generated due to civil works within the particular standards.</p>
	<p>06°18.222"N 080°52.303"E</p>	<p>It is at the edge of the carriage way at 0.456km on LHS</p>	<p>Owner of the shop is Mr. W.R. Sarath. He is selling fruits. His monthly income is about Rs. 10,000. This is his only income source. There are 04 family members in his family. He is doing this business for 02 years.</p>	<p>Carriageway - 3.5m Shoulder - 0.5m (both sides) Drains as required.</p>	<p>The shop is located at the edge of the RoW which is 9.5m. The improvement for the road is 4.5m excluding drains. This shop will be affected at least for one week for the shoulder improvement. However, the owner is willing to shift back the structure for his own land which is behind the shop as</p>

Photo	Coordinate	Distance to the carriageway	Description	Proposed improvement to the road	Impact and mitigation
					<p>necessary for the construction.</p> <p>In order to mitigate the impact and avoid any income loss for the owner, the project will inform the owner at least two weeks prior about construction activities of this location and project will assist to shift back the structure as necessary.</p>

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Chandrika Wewa Outer Circular Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Small shops are located within the existing ROW at Left side of starting point, 0.381km and 0.456km. If small shops need to be relocated, consult social experts of the project prior to final design.	ARAP will provide guidance for relocation.
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of Chandrika Wewa Outer Circular Road (SR20)

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Engineer's review and approval. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Embilipitiya). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation.</p> <ul style="list-style-type: none"> ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. ❖ The construction will commence only upon the written approval of the Engineer and the relevant local authority. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for 	Engineering Cost	Contractor,PMU/PIU	PMU/PIU/RDA/Consultant Engineer

		<p>the work force.</p> <ul style="list-style-type: none"> ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Boar, NW&DB, Department of Irrigation, CBO) ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complaints and actions taken to resolve them. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation Department, Provincial Irrigation Department, Mahaweli Authority and Agrarian Department. ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI

11.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required. ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. ❖ All effort will be made to minimize the land donation for the project ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Embilipitiya UC
12.	Commercial units located within the existing ROW (Preparation and Implementation of ARAP)	<ul style="list-style-type: none"> ❖ In case the Small shops located within the existing ROW at Left side of starting point, 0.381km and 0.456km are affected, the preparation of the ARAP and obtaining the WB approval is required prior to the commencement of civil works. ❖ The civil work can commence only after the relocation of the small shop to an alternate location and (if required) payment of due compensation. ❖ The procedure to be followed in this regard will be included in the ARAP and contractor should assist the PMU in the implementation of the ARAP 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
13.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	RDA, Embilipitiya UC
14.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
15.	Clearing of road and shoulders	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. 	Engineering	Contractor	PMU/PIU/RDA/Consultant

	Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Ebilipitiya Local Authority, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 	Cost		Engineer
16.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>restricted to particular points as directed by the engineer</p> <ul style="list-style-type: none"> ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 			
18.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. ❖ Vulnerable receptors for high dust levels should be identified by the Contractor in advance and necessary location specific measures as agreed with the Engineer should be applied to mitigate the impact. ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should eb located at least 500m form the public sensitive and residential areas 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles.			
10	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA, GSMB
11.	Quarry Operations and Management of Self Operated Quarry Sites	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA,GSMB

		<ul style="list-style-type: none"> ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 			
12.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In Hilly terrain and areas with slopes <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.</p> <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. <p>❖ Refer Annex III</p>			
20.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Vulnerable receptors for high noise levels should be identified by the Contractor in advance and necessary location specific measures as agreed with the Engineer should be applied to mitigate the impact. ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
21.	Vehicular noise pollution at residential / sensitive receptors	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. ❖ The practice must be ensured especially near residential / commercial / sensitive areas. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be Employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 			
22.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. ❖ Vulnerable receptors for high vibration levels such as houses and shrines located adjacent to the ROW should be identified by the Contractor in advance and necessary location specific measures as agreed with the Engineer should be applied to mitigate the impact. ❖ Prior to commencement of compaction, excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB
23.	Pollution of Soil and Water via Fuel and	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and 	Engineering	Contractor	PMU/PIU/RDA,/Consultant

	Lubricants	<p>equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water way sand water bodies.</p> <ul style="list-style-type: none"> ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. ❖ Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 	Cost		Engineer CEA
24.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Trenches should be progressively rehabilitated once work is completed. ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
25.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
26.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>Safety Manual of RDA.</p> <ul style="list-style-type: none"> ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 			
27.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF
28.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health Inspector and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant EngineerMoH

		<ul style="list-style-type: none"> ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the Contractors site staff. ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 			
29.	Prevention of Vector Borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
30.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfort ability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
31.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		<ul style="list-style-type: none"> ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 			
32.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with respective authority to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
33.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Protection of Physical Cultural Resources (PCRs) close to the	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

	Site.	<p>mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works.</p> <ul style="list-style-type: none"> ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 			
35.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer..The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

36.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. • No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. <ul style="list-style-type: none"> • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. • Washing the vehicles should be conducted periodically to prevent carrying any invasive species • The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> • All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. • The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. • The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

39.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters (Environmental and Social Safeguards Officer (ESSO)). All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review public complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
41.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
POST CONSTRUCTION					
42.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the 	Engineering Cost	Contractor	RDA./Consultant Engineer, PRDA

		<p>Engineer for information</p> <ul style="list-style-type: none"> ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 			
43.	Environmental Enhancement/ Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
44.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA./Consultant EngineerPRDA
45.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
46.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer
47.	Commercial units located within the existing ROW (Post monitoring of ARAP)	<ul style="list-style-type: none"> ❖ PMU will carry out consultations with owners of affected shops and discuss about their permanent relocation. ❖ The shop owners will be linked with relevant local authorities to (if necessary) for further assistance. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	Squatter	Female	<ul style="list-style-type: none">• Has a fruit and lottery stall.• Earn a daily income of Rs. 1500 – 2000 from the shop.• This area is popular among local tourists for recreational activities.
11.03.2021	Fish seller	Male	<ul style="list-style-type: none">• Doing this business for two years and have a monthly income of Rs. 25,000/=.• There is a fishery society operating in the area.• Many people visit Chandrika wewa (lake) daily.
11.03.2021	Small shop owner	Male	<ul style="list-style-type: none">• Selling fruits at this place.• It's my own house and land behind the shop and I can shift back during construction.• Majority of people living along the road are Sinhalese and Buddhists.

**2.20. CESGP of SR 21 - 100 Mile Post
BosigirigamaThalagahawela via Galwanguwa Road**



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

**Codes of Environmental and Social Good Practice
(CESGP)**

of

**SR 21– 100 Mile Post Bosigirigama Thalagahawela
via Galwanguwa Road (4.4km)**

Draft Final Report

June 2021

Background
100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road

Road length: 4.4km

Coordinates: Starting Point 6°21'43.94"N, 80°49'42.68"E

End Point 6°21'8.73"N, 80°49'59.86"E

Location: District: Ratnapura
DS Division: Embilipitiya
EE Division: Embilipitiya
GN Divisions: Hingurara
Nindagampelessa

1. Introduction

The 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road(4.4km) starts at Pelmadulla – Embilipitiya – Nonagama Road (A018) and ends at the same road (A018). This road is under the custody of Embilipitiya Pradeshiya Sabha (Local authority) and the Provincial Road Development Authority (PRDA), Sabaragamuwa. The surface of the road is damaged concrete, macadam and gravel. The road traverses along a flat terrain (Min. 96m, Max. 118m MSL). There is no surface water bodies found adjacent to the road. The road does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 4.4km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.0m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 3 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e. RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road.

The existing average RoW of the 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road is around 7m and the average carriageway is 3.4m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha and the Sabaragamuwa Province PRDA will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, representatives from Embilipitiya Pradeshiya Sabha and Sabaragamuwa PRDA will function as members of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road. There are banana, pepper, manioc and vegetable cultivations in the project area. Farmers in the area use this road to transport their agricultural produce to the market. School children and public and private sector workers also use this road to go to schools and their workplaces.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road will have low-negligible environmental impacts. The main impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts will only occur during construction phase. Therefore, these can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a Codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to occur.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** Around 80 households and 8 small shops are in the project area. The estimated population is 330. They are Sinhala Buddhists by their ethnicity and religion respectively.
- **Land ownership:** There are no squatters along the road. All the lands are private lands.
- **Livelihoods:** Agriculture is the main source of livelihood of the people. Banana, pepper, manioc and vegetables are the main agricultural crops grown by people. In addition, large scale teak plantations and several bricks manufacturing sites are also observed during the field visit. Some people are engaged in public and private sector jobs as well.
- **Local organisations:** There are organisations attached to agriculture activities such as “GoviSamithi” (Farmer Organizations).
- **Community infrastructure and resources:** There is a temple and a newly constructed structure to place a religious statue. Details are provided in Table 1. During construction period, the access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	GPS Location		Road Side	Distance from RoW
Arama Temple	N 6°21'.604"	E 80°44'336"	LHS	40m
Structure for Shrine	N 6°21'.241"	E 80°49'786"	LHS	2m

- **On-going development projects:** None.
- **Visitors to the area:** People from outside come to the project area to buy agricultural produce such as banana, pepper and manioc. In addition, people also come to these villages to buy bricks.

7.1 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.

Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Pradeshiya Sabha. (Local Authority) and Sabaragamuwa Province PRDA.
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		✓		Land within the RoW is owned by Embilipitiya Pradeshiya Sabha and Sabaragamuwa Province PRDA. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a temple and a newly constructed structure to place a religious statue (see Table 1).

Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Embilipitiya Police station which is 6.5km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Approximately 15 laborers will be recruited for the project. Both skilled and unskilled workers will be used by the contractors.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	Total number of labor required for the project is approximately 15. Priority will be given to hire the local labors.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province

Sub-project: 100 Mile post Bosirigama Thalagahawela Via Galwanguwa Road (No. 21)

Location: District: Rathnapura
DS Division: Embilipitiya

Road Length: 4.4 km

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permanent alteration required. However temporary diversion will be required at 1.5, 3.15 and 3.8km where new culverts will be established and reconstruction of existing culverts at 0.35, 2.9 and 3.4km. Continuous flow of water will be facilitated to downstream and stream will be restored soon after requirement is over. Siltation of waterbodies will be minimized by application of silt traps, silt fences etc...
- Deterioration of surface water quality due to		✓	

silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?			
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting is not necessary. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Dust impact will be minimized by sprinkling water adequately. Noise and vibration will be maintained within permissible levels and night time activities will be avoided.
- Hazardous driving conditions where construction interferes with pre-existing roads?	✓		Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?		✓	
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of

			toxic materials.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Annex 1 – Photographs of the 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road



Figure 1 : Starting point of the road



Figure 2: Along the Road



Figure 3: Bodhi Sri Dhamma School located at 0.790km on LHS of the road

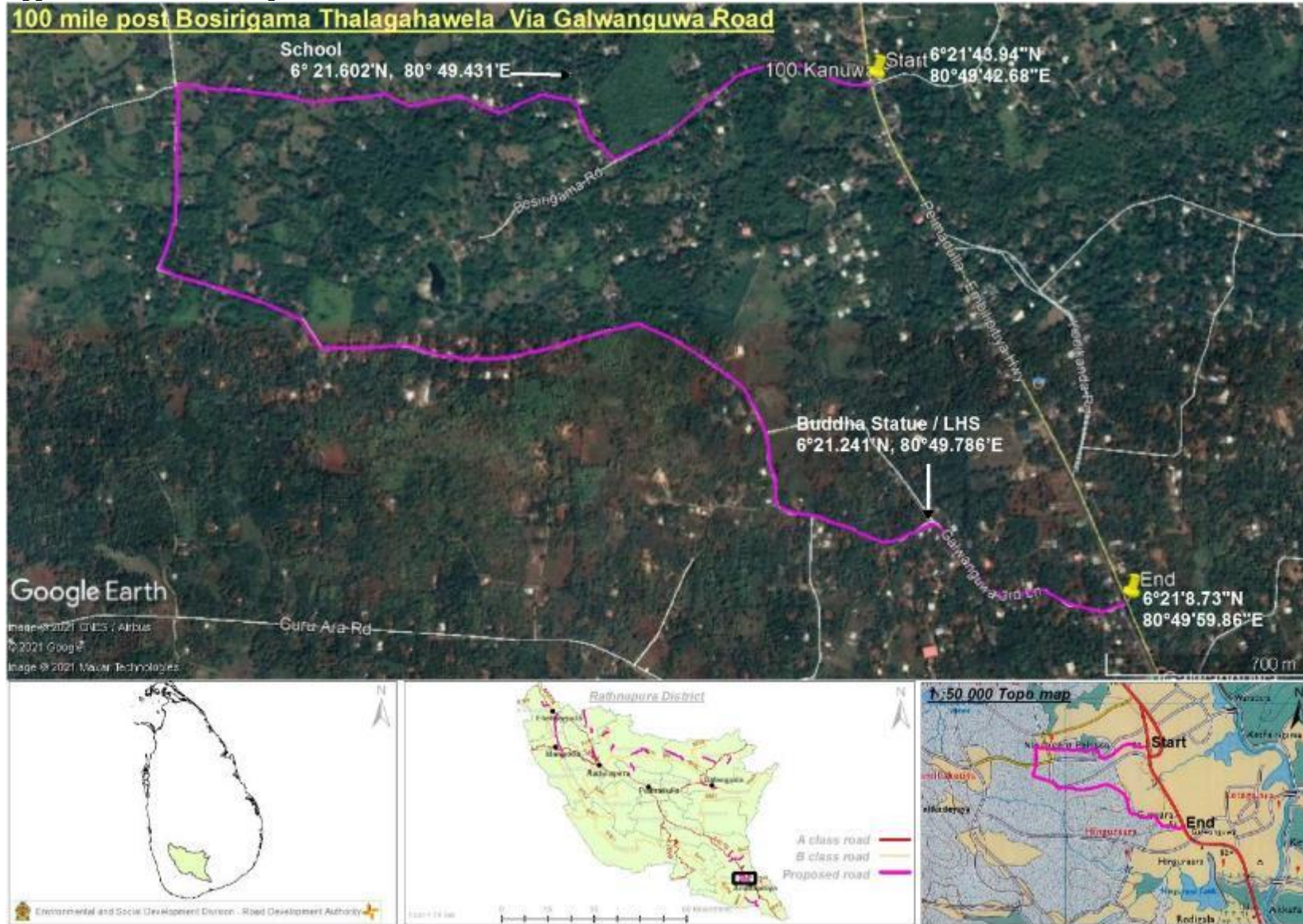


Figure 5: Buddha Shrine located near to the road



Figure 6: End point of the road

Appendix 2 - Location Map



**Design Recommendations Based on Environmental and Social Screening for
incorporation in final design**

Name of Subproject: 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road	
Risk Category assigned by E and S Screening	Low Risk
Design Recommendations and guidance	
Design Justification	Guidance to be Used
It is recommended to improve the road safety by introducing safety sign boards at the starting and end points of this road as it directly serves the A018 road at its starting and end points.	
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Codes of Environmental and Social Good Practice (CESGPs) for Codes of Environmental and Social Good Practice (CESGPs) for 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road

1. Preamble

The following CESGP should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to sub-Contractors including nominated sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the contactors on behalf of the Employer the Engineer shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer (ESSO)** shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings conveyed by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESO to be appointed is included in **Annex 1** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his sub-Contractor /s fails to implement the CESGP recommendations. After informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.

- It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
- The ESMS shall be updated every 3 months and submit for the Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1.Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- ❖ The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- ❖ Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- ❖ The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction²⁰.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed.

In such case;

- ❖ The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.²¹
- ❖ Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- ❖ If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the Engineer to understand the due process to be followed and agreement made with the community. No such trees shall be removed without prior written consent from the Engineer and endorsed by the community.

²⁰ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.

²¹ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

- ❖ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- ❖ All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- ❖ Compensatory plantation by way of Re-plantation of at least three times the number of trees cut (1:3) should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23).

3.1.3. Construction of labor camps where applicable

- ❖ The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- ❖ The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- ❖ Separate accommodations should be provided for female labor with all necessary facilities
- ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer
- ❖ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- ❖ Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- ❖ If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuisances or disturbances are caused to the local communities due to labor misconduct.
- ❖ Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- ❖ Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- ❖ The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- ❖ The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- ❖ The Contractor shall source all borrow materials only from licensed sources.
- ❖ Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.
- ❖ Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- ❖ The Contractor in discussion with the Engineer if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- ❖ A separate BoQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- ❖ Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor's site staff.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- ❖ The Contractor shall take measures to make the residents and other stakeholders who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ❖ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- ❖ The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.

- ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- ❖ All efforts must be made to minimize the land donation for the project
- ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- ❖ Contractor shall identify locations where permanent access is blocked for construction.
- ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

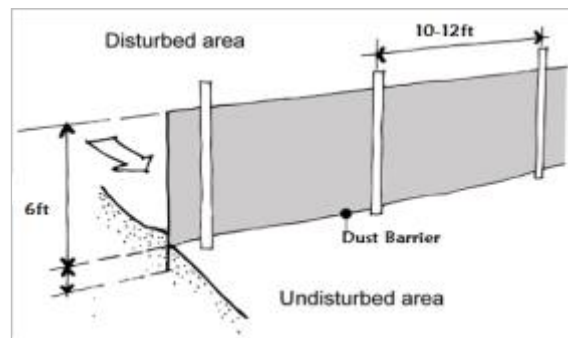
- ❖ Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- ❖ All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

- ❖ All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks (with measures to avoid water collection in them), with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- ❖ Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods.
- ❖ Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.
- ❖ Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.



- ❖ The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- ❖ Dust masks should be provided to the laborers for the use at required times.

3.2.3. Management of Noise related Nuances

- ❖ Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- ❖ All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- ❖ Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools (Dhamma school at 0.79km) during operating hours, public courts or any other affected nearby community.
- ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- ❖ Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors

- ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- ❖ Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include hospitals, schools, places of worship and households.
- ❖ All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- ❖ The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- ❖ The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- ❖ The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- ❖ During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- ❖ The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- ❖ The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.



3.2.8. Protection of topsoil

- ❖ The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- ❖ Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor.
- ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies
- ❖ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- ❖ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- ❖ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- ❖ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.

- ❖ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- ❖ Further Guidance on cost effective measures to follow are presented in **Annex III**.

3.2.10. Pollution from Fuel and Lubricants

- ❖ The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- ❖ Contractor shall arrange for collection storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed-off in accordance with standards set under the National Environmental Act (NEA) and the Central Environmental Authority of Sri Lanka/Ministry of Environment (CEA/MoE),
- ❖ Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- ❖ The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)
- ❖ The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- ❖ Safety signboards should be displayed at all necessary locations.
- ❖ The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- ❖ All vehicles used in the construction process should be operated by experienced and trained operators under supervision.
- ❖ Basic onsite safety training should be conducted for all laborers during the CESGP training prior to the start of the construction activities.
- ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.
- ❖ Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- ❖ Construction wastes should be removed within 24 hours



from the site to ensure public safety.

- ❖ Notices to the public and workers should be displayed in all three languages
- ❖ Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.
- ❖ All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.

3.2.12. Safety Gear for Labors

- ❖ Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- ❖ The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- ❖ In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.



3.2.13. Prevention of accidents

- ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.



3.2.14. Presence of Outside Labor in a Residential Area

- ❖ Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- ❖ The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- ❖ The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- ❖ The Contractor shall at all times, ensure proper handwashing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities
- ❖ The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- ❖ The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfortability for female users and safe access.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce – on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
 - Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
 - A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
 - The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- ❖ Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- ❖ Temporary flooding due to excavation.
- ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Protection of Physical Cultural Resources (PCRs) close to the Site.

- If any physical cultural resources are identified along the project trace the Contractor shall ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works.
- If the site is within 5 meters of the proposed road trace the Contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and shall take all requisite measures to ensure so.
- The Contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR.
- Labors shall be briefed to ensure that no acts of vandalism shall be tolerated and shall be penalized. Workers should not be allowed to trespass in to such areas.
- Unless agreed with the community the Contractor shall not block access to any known places of worship or PCRs along the project trace.

3.2.22. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.23. Tree Re-Planting

- ❖ Re-plantation of at least thrice (1:3) the number of trees cut should be carried out along the project road.
- ❖ Since the major portion of the project road may pass through open lands, planting of trees along the entire stretch of the road is recommended as an enhancement measure.
- ❖ Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and PE and undertake the replanting activities here.
- ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- ❖ Survival status shall be reported on monthly basis to Engineer in charge.

3.2.24. Clearing/Closure of Construction Site/Labor Camps

- ❖ Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization.
- ❖ On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.

3.2.25. Management of Contractor Operated Quarry and Borrow Sites

3.2.25.1. Burrowing of Earth and Management of Self Operated borrow Sites

- ❖ In the event the Contractor shall use a self-operated borrow site
- ❖ The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB) and CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- ❖ The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- ❖ No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- ❖ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- ❖ All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- ❖ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- ❖ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in **Annex 2** of the CESGP.

3.2.25.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- ❖ They should be operated with a valid IML EPL and trade license
- ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha.
- ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO
- ❖ It is recommended not to seek material from quarries that have ongoing disputes with community.
- ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractor's operations shall be a responsibility of the Contractor.
- ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.26. Procedures for Dealing with Chance Finds

3.2.26.1. Flora and Chance found Fauna

- ❖ The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- ❖ If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- ❖ The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.26.2. Chance Found Archaeological Property

- ❖ All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- ❖ The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- ❖ The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.27. Handling Social and Environmental Issues during Construction

- ❖ The Contractor shall appoint a person responsible for community liaison (Environmental and Social Safeguards Officer (ESSO)) and to handle public complaints regarding environmental/social related matters. All public complaints shall be entered into the Complaints Register.
- ❖ The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- ❖ A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the ESSO on complaints thereof.
- ❖ A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- ❖ Trafficking of children (forced/bonded labour) is prohibited under the project.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- ❖ Contractor shall not employ workers below the age of 14 years
- ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- ❖ Contractor to prepare site restoration plans for approval by the engineer.
- ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- ❖ On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.
- ❖ All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- ❖ No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- ❖ The contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the dam site and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

- ❖ The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Venue	Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
		Type of Stakeholder	Number of Participants (M/F)	
SR 21: 100 Mile post Bosirigamathalagahawela via Galwanguwa Road	11.03.2021	Resident	Male	<ul style="list-style-type: none"> • Almost all the people living along the project area is Sinhalese and their religion is Buddhism. • During the construction period dust will be a major issue. • Outside people come to this area to buy agricultural produce such as banana, pepper and manioc. In addition, people come to these villages to buy bricks • Street lamps need to be installed where necessary.
	11.03.2021	Resident	Male	<ul style="list-style-type: none"> • It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road • There are cultivations such as banana, pepper, manioc and vegetables in the area. • Farmers in the area use this road to transport their agricultural produce to market. • School children and public and private sector workers also use this road to go to schools and their working places.

2.21. CESGP of SR 22 - 13 Bund Road from 99 Junction



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

**Codes of Environmental and Social Good Practice
(CESGP)**

of

SR 22– 13 Bund Road from 99 Junction (1.4km)

Draft Final Report

May 2021

Background **13 Bund Road near 99 Junction**

Road length: 1.4km

Coordinates: Starting Point 6°22'51.07"N, 80°49'5.04"E
End Point 6°23'15.80"N, 80°49'36.79"E

Location:

District: Ratnapura
DS Division: Embilipitiya
EE Division: Embilipitiya
GN Divisions: Udawalawa Track 02

1. Introduction

The 13 Bund road near 99 Junction (1.42km) starts at Pelmadulla – Embilipitiya – Nonagama (A018) Road. This road is under the custody of Embilipitiya Pradeshiya Sabha (Local authority). The surface of the road is gravel and damaged concrete. The road traverses along a flat terrain (Min.70m, Max. 97m). A stream crosses the road at 0.75km. This road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 1.4 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.0m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the 13 Bund Road near 99 Junction road is around 6.8m and the average carriageway is 3.3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-

Aways...etc. Further, a representative from Embilipitiya Pradeshiya Sabha will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to a national road (Pelmadulla – Embilipitiya – Nonagama (A018) Road). There are banana, pepper, manioc and vegetable cultivations in the project area. Farmers in the area use this road to transport their agricultural production to market.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location).The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists. The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. 13 Bunt road from near 99 Junction will have low-negligible environmental and social impacts such as temporary loss of access, dust issues, siltation of irrigation canals that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a Codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to occur.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** Around 50 households and 6 small shops are in the project area. Their population is around 210. They are Sinhala Buddhists by their ethnicity and religion.
- **Land ownership:** There are no squatters along the road. The land is private and government owned.
- **Livelihoods:**

Agriculture is the main source of livelihood of the people. Banana, pepper, manioc and vegetables are the main agricultural crops grown. In addition, teak plantations are also observed during the field visit. Some people are engaged in public and private sector jobs as well.

- **Local organisations:**
There are organisations attached to agricultural activities such as “*GoviSamithi*” (Farmer Organizations).
- **Community infrastructure and resources:**
There is a Buddha statue. Details are provided in Table 1. During construction period, access will be disturbed. In order to mitigate this impact, the temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	GPS Location		Road Side	Distance from RoW
Buddha statue	N 6°23'.326"	E 80°49'514"	LHS	1m

- **On-going development projects:** None
- **Visitors to the area:** People from outside come to the project area to buy agricultural produce such as banana, pepper and manioc.

7.1 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains were not physically exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Pradeshiya Sabha. (Local Authority).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW

Is the ownership status and current usage of land known?		✓		Land within the RoW is owned by Embilipitiya Pradeshiya Sabha. This land is used for the road
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a Buddha statue (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Embilipitiya Police station which is 9km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				

How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Approximately 12 laborers will be recruited for the project. Both skilled and unskilled workers will be used by the contractors.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	Total number of labor required for the project is approximately 12. Priority will be given to hire the local labors.

Screening checklist to determine the level of Environmental Impacts.

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province

Sub-project: 13 Bund Road from 99 Junction (SR22)

Location: District: Rathnapura
DS Division: Embilipitiya

Road Length: 1.4 km

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		Road crosses an irrigation canal located at 0.6km. However the canal will not be permanently altered for road rehabilitation. Continuous water supply shall be provided to downstream and waterways shall be restored to its original condition. Soil erosion control measures such as application of silt barriers will minimize siltation of water bodies.

- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Road crosses an irrigation canal located at 0.6km. This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies, installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting is not necessary. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Dust impact will be minimized by sprinkling water adequately. Noise and vibration will be maintained within permissible levels and night time activities will be avoided.
- Hazardous driving conditions where construction interferes with pre-existing roads?	✓		Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and	✓		Location of labor camps only at approved sites and

possible transmission of communicable diseases from workers to local populations?			continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?		✓	
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lams, retaining walls will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of 13 Bunt road from near 99 Junction



Figure 1: Starting point of the road



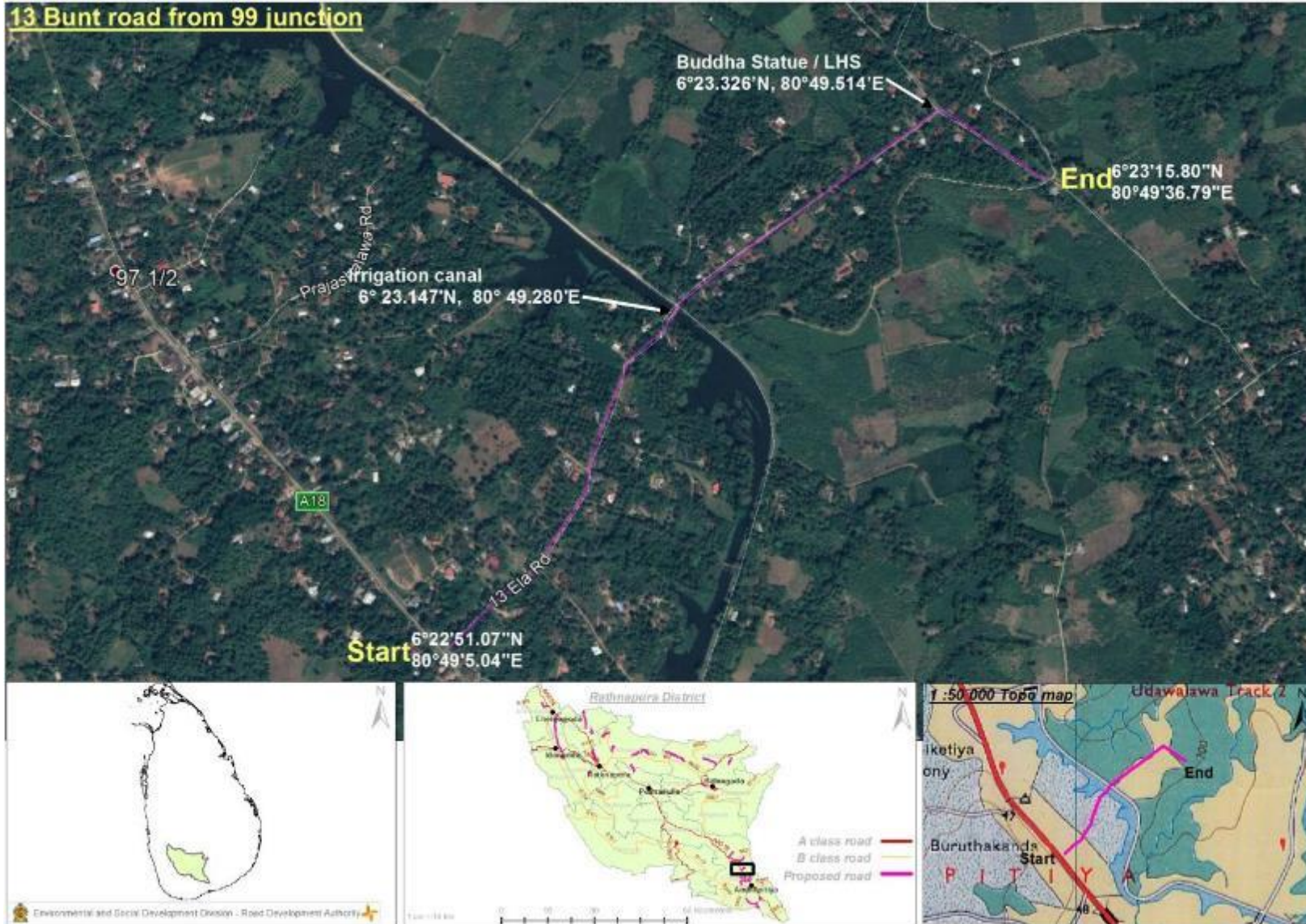
Figure 2 : Along the road



Figure 3: Buddha Statue

Appendix 2 – Location map

13 Bunt road from 99 junction



**Design Recommendations Based on Environmental and Social Screening for
incorporation in final design**

Name of Subproject: 13 Bunt road from near 99 Junction Road	
Risk Category assigned by E and S Screening	Low Risk
Design Recommendations and guidance	
Design Justification	Guidance to be Used
It is recommended to introduce side drains where necessary since runoff flows over the road during rains.	Section 3.2.20 of CESGP
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Codes of Environmental and Social Good Practice (CESGPs) for Codes of Environmental and Social Good Practice (CESGPs) for 13 Bunt road from near 99 Junction Road

1. Preamble

The following CESGP should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to sub-Contractor s including nominated sub-Contractor s if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the contactors on behalf of the Employer the Project Engineer (Referred to as Engineer) shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer (ESSO)** shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings conveyed by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESSO to be appointed is included in **Annex 1** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his sub-Contractor /s fails to implement the CESGP recommendations. After informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.

- It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
- The EMSS shall be updated every 3 months and submit for the Project Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1. Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- ❖ The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- ❖ Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- ❖ The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction²².As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed.

In such case;

- ❖ The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.²³
- ❖ Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- ❖ If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such trees shall be removed without prior written consent from the Engineer and endorsed by the community.

²² The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.

²³ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

- ❖ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- ❖ All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- ❖ Compensatory plantation by way of Re-plantation of at least three times the number of trees cut (1:3) should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23).

3.1.3. Construction of labor camps where applicable

- ❖ The Contractor shall obtain prior written approval from the Engineer and from the local authority for the location, layout and facilities provided for labor camp prior to erection.
- ❖ The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- ❖ Separate accommodation should be provided with all required facilities for female laborers
- ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- ❖ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- ❖ Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- ❖ If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuances or disturbances are caused to the local communities due to labor misconduct.
- ❖ Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- ❖ Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- ❖ The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- ❖ The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- ❖ The Contractor shall source all borrow materials only from licensed sources.
- ❖ Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.
- ❖ Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- ❖ The Contractor in discussion with the PE if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- ❖ A separate BoQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- ❖ Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor's site staff.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- ❖ The Contractor shall take measures to make the residents and the other stakeholders who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ❖ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- ❖ The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.

- ❖ All efforts must be made to minimize the land donation for the project
- ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- ❖ Contractor shall identify locations where permanent access is blocked for construction.
- ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

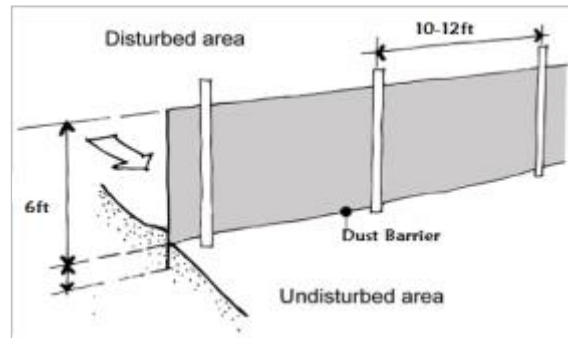
- ❖ Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- ❖ All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

- ❖ All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks (with measures to avoid water collection in them), with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- ❖ Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four times a day) as the levels of dust can be elevated during dry periods.
- ❖ Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



- ❖ The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- ❖ Dust masks should be provided to the laborers for the use at required times.
- ❖ Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads

3.2.3. Management of Noise related Nuisances

- ❖ Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- ❖ All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- ❖ Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- ❖ Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors

- ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- ❖ Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include hospitals, schools, places of worship and households.

- ❖ All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- ❖ The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- ❖ The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties (houses, public properties and places of worship) due to vibration or any other means.
- ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- ❖ The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- ❖ During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- ❖ The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the extent possible.
- ❖ The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

- ❖ The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
E.g. – Irrigation canal at 0.6km
- ❖ Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor.
- ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies
- ❖ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- ❖ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- ❖ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- ❖ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- ❖ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- ❖ Further Guidance on cost effective measures to follow are presented in **Annex III**.



3.2.10. Pollution from Fuel and Lubricants

- ❖ The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- ❖ Contractor shall arrange for collection storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed-off in accordance with standards set under the National Environmental Act (NEA), the Central Environmental Authority of Sri Lanka/Ministry of Environment(CEA/MoE),
- ❖ Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- ❖ The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)

- ❖ The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- ❖ Safety signboards should be displayed at all necessary locations.
- ❖ The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- ❖ All vehicles used in the construction process should be operated by experienced and trained operators under supervision.
- ❖ Basic onsite safety training should be conducted for all laborers during the CESGP training prior to the start of the construction activities.
- ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.
- ❖ Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety.
- ❖ Notices to the public and workers should be displayed in all three languages
- ❖ Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.
- ❖ All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.



3.2.12. Safety Gear for Labors

- ❖ Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- ❖ The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- ❖ In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.



3.2.13. Prevention of accidents

- ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.



3.2.14. Presence of Outside Labor in a Residential Area

- ❖ Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- ❖ The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- ❖ The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- ❖ The Contractor shall at all times, ensure proper handwashing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities
- ❖ The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- ❖ The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfortability for female users and safe access.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce – on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
 - Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
 - A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
 - The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- ❖ Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- ❖ Temporary flooding due to excavation.
- ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Protection of Physical Cultural Resources (PCRs) close to the Site.

- If any physical cultural resources are identified along the project trace the Contractor shall ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works.
- If the site is within 5 meters of the proposed road trace the Contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and shall take all requisite measures to ensure so.
- The Contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR.
- Labors shall be briefed to ensure that no acts of vandalism shall be tolerated and shall be penalized. Workers should not be allowed to trespass in to such areas.
- Unless agreed with the community the Contractor shall not block access to any known places of worship or PCRs along the project trace.

3.2.22. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.23. Tree Re-Planting

- ❖ Re-plantation of at least three times (1:3) the number of trees cut should be carried out along the project road.
- ❖ Since the major portion of the project road may pass through open lands, planting of trees along the entire stretch of the road is recommended as an enhancement measure.
- ❖ Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and PE and undertake the replanting activities here.
- ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- ❖ Survival status shall be reported on monthly basis to Project Engineer in charge.

3.2.24. Clearing/Closure of Construction Site/Labor Camps

- ❖ Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization.
- ❖ On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.

3.2.25. Management of Contractor Operated Quarry and borrow Sites

3.2.25.1. Burrowing of Earth and Management of Self Operated borrow Sites

- ❖ In the event the Contractor shall use a self-operated borrow site
- ❖ The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- ❖ The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- ❖ No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- ❖ Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- ❖ All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority.
- ❖ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- ❖ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in **Annex 2** of the CESGP.

3.2.25.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- ❖ In the event the Contractor manages a self-owned existing quarry sites available in the project area
- ❖ They should be approved by GSMB with valid EPL and Industrial Mining Licenses;
- ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha.
- ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO
- ❖ It is recommended not to seek material from quarries that have ongoing disputes with community.
- ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractor s operations shall be a responsibility of the Contractor.
- ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.26. Procedures for Dealing with Chance Finds

3.2.26.1. Flora and Chance found Fauna

- ❖ The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- ❖ If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- ❖ The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.26.2. Chance Found Archaeological Property

- ❖ All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- ❖ The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- ❖ The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.27. Handling Social and Environmental Issues during Construction

- ❖ The Contractor shall appoint a person responsible for community liaison (ESSO) and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- ❖ The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- ❖ A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the ESSO on complaints thereof.
- ❖ A final report shall be forwarded to the Engineer within 3 Days

3.2.28. Prevention of Sexual exploitation, child trafficking and child labour

- ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- ❖ Trafficking of children (forced/bonded labour) is prohibited under the project.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- ❖ Contractor shall not employ workers below the age of 14 years
- ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- ❖ Contractor to prepare site restoration plans for approval by the engineer.
- ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- ❖ On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.
- ❖ All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- ❖ No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- ❖ The contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the dam site and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

- ❖ The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

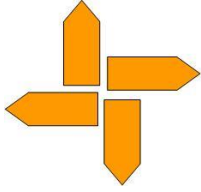
Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Person consulted	Gender	Responses raised
11.03.2021	Farmer	Male	<ul style="list-style-type: none">• This road development is very good.• A number of vehicles traverse on this road daily.• There is no public transport service on this road.• There are banana, pepper, manioc and vegetable cultivations in the project area. Farmers in the area use this road to transport their agricultural produce to the market.• There are farmer organizations operating in the area.
11.03.2021	Resident	Female	<ul style="list-style-type: none">• The existing road surface is damaged.• Roadside drains need to be provided where necessary and should be properly maintained.• Some people have title deeds and some people have permits for their lands.• Outside people come to the project area to buy agricultural produce such as banana, pepper and manioc.

2.22. CESGP of SR 23 - Udawalawa to Kolambage Ara via Adaluwa road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

**Codes of Environmental and Social Good Practice
(CESGP)**

of

**SR23 – Udawalawa to Kolambage Ara via Adaluwa
road Road (1.8km)**

Draft Final Report

June 2021

Background Udawalawa to KolabageAra Via Adaluwa Road

Road length: 1.8km

Coordinates: Starting Point 6°24'43.25"N, 80°47'40.78"E
End Point 6°24'11.31"N, 80°46'59.64"E

Location: District: Ratnapura
DS Division: Embilipitiya
EE Division: Embilipitiya
GN Divisions: Adoluwaand Thibolketiya

1. Introduction

The Udawalawa to KolabageAra via Adaluwa Road (1.8km) starts at Pelmadulla – Embilipitiya – Nonagama (A018) Road. This road is under the custody of Embilipitiya Pradeshiya Sabha (Local authority). The existing average RoW of the road is around 6.1m and the average carriageway is 3.0m. The surface of the road is concrete, damaged macadam and gravel. The road runs through a flat terrain (Min. 77m, Max. 88m). The road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 1.8 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.0m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e. RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Udawalawa to KolabageAra Via Adaluwa Road is around 6.1m and the average carriageway is 3.0m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-

Aways...etc. Further, a representative from Embilipitiya Pradeshiya Sabha will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived benefits

It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road. Banana, pepper and manioc are the main agricultural crops grown in the project area. In addition, fruit crops such as mango and vegetables like brinjal, bitter melon, radish and cereals such as, *mung* bean (green gram) and cowpea are also grown well. Farmers in the area use this road to transport their agricultural produce to the market. School children and public and private sector workers also use this road to go to schools and their work places.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Udawalawa to Kolabage Ara Via Adaluwa Road will have low-negligible environmental and social impacts such as siltation of streams, temporary loss of access, dust, noise and vibration that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a Codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to occur.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:** Around 60 households and 6 small shops are in the project area. The estimated population is 250. They are Sinhala Buddhists by ethnicity and religion respectively.

- **Land ownership:** There are no squatters along the road. All lands are private and government lands.
- **Livelihoods:** Agriculture is the main source of livelihood of people in the project area. Banana, pepper and manioc are the main agricultural crops. In addition, fruit crops such as mango, vegetables like brinjal, bitter gourd, radish, cereals like, mung bean and cowpea are also grown well. Some people are engaged in public and private sector jobs as well.
- **Local organisations:** There are organisations linked to agriculture such as “*GoviSamithi*” (Farmer Organizations).
- **Community infrastructure and resources:** There are two Buddha statues and a pre-school beside the road. Details are provided in Table 1. During construction period, access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1:Community infrastructure and resources

Community infrastructure & resources	GPS Location		Road Side	Distance from RoW
Buddha Statue	6°24.535’N	80°47.648’E	LHS	2m
Pre - School	6°24.344’N	80°47.362’E	LHS	8m
Bo tree and Buddha Statue	6°24.11.54’N	80°46.59.85’E	RHS	3m

- **On-going development projects:** None
- **Visitors to the area:** People from outside come to the project area to buy agricultural produce.

7.2Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.

Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Pradeshiya Sabha. (Local Authority).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		Land within the RoW is owned to Embilipitiya Pradeshiya Sabha. This land is used for the road
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There are two Buddha statues and one pre-school (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Embilipitiya Police station which is 1.7km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	

Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Approximately 12 laborers will be recruited for the project. Both skilled and unskilled workers will be used by the contractors.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	Total number of labor required for the project is approximately 12. Priority will be given to hire the local labors.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: Udawalawa to Kolabege Ara via Adaluwa Road (No.23)
Road Length: 1.8km
Location: District: Rathnapura
 DS Division: Embilipitiya
 GN Divisions: Adaluwa

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		✓	
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Storing construction materials containing small/ fine particles in places which are not subjected to wash away by runoff and keeping temporary soil dumps avoiding water bodies (at streams 0.5 and 1.55km) will minimize this impact. Storing and protecting construction materials such as cement,

			bitumen and other chemicals including any harmful substances in protected compartments/ enclosures and handling carefully to avoid spills, disposing waste containers and material only in approved locations will mitigate this impact. Providing adequate and appropriate facilities for Labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Noise and vibration levels generated due to civil works will be managed within permissible levels as specified in the national standards. Blasting is not necessary along the road.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Special attention will be required to settlements located close to the road (Along the entire road) and regular sprinkling of water to suppress dust and avoiding construction activities during night time will be practiced in order to mitigate these impacts.
- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable	✓		Location of labor camps only at approved sites and continues labor supervision

diseases from workers to local populations?			shall minimize these impacts. Utilizing local labour as much as possible will reduce the need of labour camps.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding water collection areas within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Annex 1- Photographs of Udawalawa to Kolambage Ara via Adaluwa Road



Figure 6 : Starting point of the Road



Figure 2: Along the Road



Figure 3: Buddha Shrine located at 0.373km at LHS of the road



Figure 4: Pre School located at 1.080 km on LHS of the road

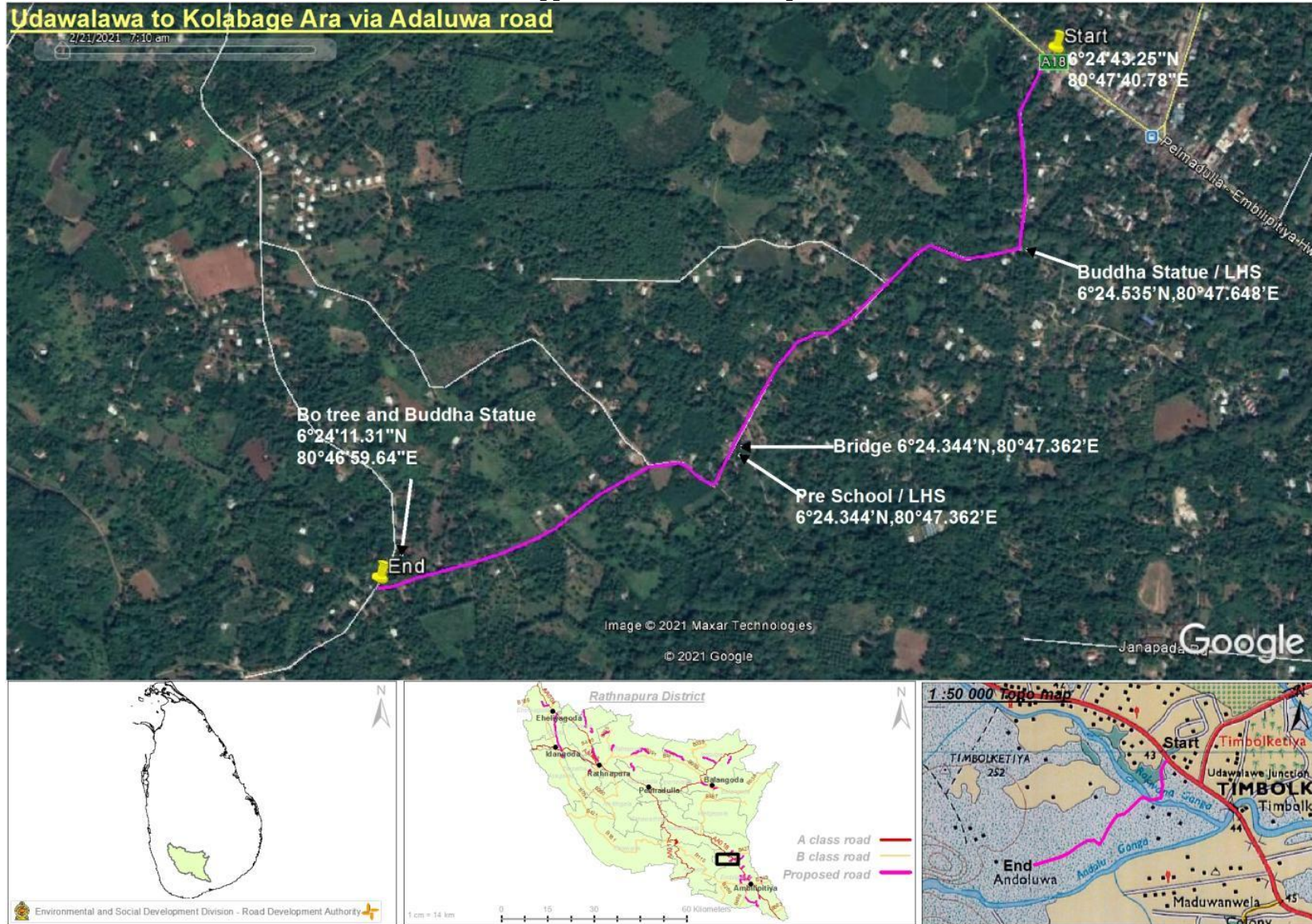


Figure 5 : Buddha Shrine and Bo Tree located at 1.870 km on RHS of the road



Figure 6: End point of the road

Appendix 2 - Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Udawalawa to Kolabage Ara via Adaluwa Road	
Risk Category assigned by E and S Screening	Low Risk
Design Recommendations and guidance	
Design Justification	Guidance to be Used
As per the public street lamps are necessary for this road to ensure the road safety.	
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Codes of Environmental and Social Good Practice (CESGPs) for Codes of Environmental and Social Good Practice (CESGPs) for Udawalawa to Kolabage Ara via Adaluwa Road Road

1. Preamble

The following CESGP should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to sub-Contractors including nominated sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the contractors on behalf of the Employer the Project Engineer (Referred to as Engineer) shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer (ESSO)** shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings conveyed by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESO to be appointed is included in **Annex I** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his sub-Contractor /s fails to implement the CESGP recommendations. After informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented.

- It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
- The EMSS shall be updated every 3 months and submit for the Project Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1. Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- ❖ The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- ❖ Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- ❖ The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction²⁴.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed.

In such case;

- ❖ The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.²⁵
- ❖ Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- ❖ If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such trees shall be removed without prior written consent from the Engineer and endorsed by the community.
- ❖ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.

²⁴ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.

²⁵ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

- ❖ All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- ❖ Compensatory plantation by way of Re-plantation of at least three times the number of trees cut (1:3) should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23).

3.1.3. Construction of labor camps where applicable

- ❖ The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- ❖ The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- ❖ Separate accommodations should be provided with all required facilities for female laborers
- ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- ❖ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- ❖ Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- ❖ If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuances or disturbances are caused to the local communities due to labor misconduct.
- ❖ Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- ❖ Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- ❖ The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- ❖ The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- ❖ The Contractor shall source all borrow materials only from licensed sources.
- ❖ Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.
- ❖ Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- ❖ The Contractor in discussion with the PE if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project

corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA

- ❖ A separate BoQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- ❖ Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details
- ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor's site staff.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- ❖ The Contractor shall take measures to make the residents and the other stakeholders who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ❖ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- ❖ The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- ❖ All efforts must be made to minimize the land donation for the project
- ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- ❖ Contractor shall identify locations where permanent access is blocked for construction.
- ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

- ❖ Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- ❖ All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

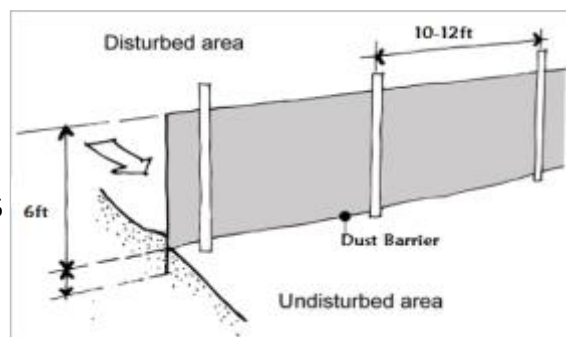
3.2.2. Management of Dust and Fugitive Emissions

- ❖ All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks (with measures to avoid water collection in them), with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- ❖ Continual water sprinkling should be carried out in the work and fill areas and

825



the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods.

- ❖ Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



- ❖ The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- ❖ Dust masks should be provided to the laborers for the use at required times.
- ❖ Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- ❖ Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- ❖ All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- ❖ Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- ❖ Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors

- ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- ❖ Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include hospitals, schools, places of worship and households.
- ❖ All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- ❖ The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.

- ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- ❖ The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- ❖ The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- ❖ During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- ❖ The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- ❖ The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

- ❖ The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- ❖ Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor.
- ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies
- ❖ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.

- ❖ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- ❖ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- ❖ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- ❖ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- ❖ Further Guidance on cost effective measures to follow are presented in **Annex III**.



3.2.10. Pollution from Fuel and Lubricants

- ❖ The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- ❖ Contractor shall arrange for collection storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed-off in accordance with standards set under the National Environmental Act (NEA) or by the Central Environmental Authority of Sri Lanka/Ministry of Environment (CEA/MoE),
- ❖ Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- ❖ The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)
- ❖ The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- ❖ Safety signboards should be displayed at all necessary locations.
- ❖ The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- ❖ All vehicles used in the construction process should be operated by experienced and trained operators under supervision.



- ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities.
- ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.
- ❖ Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Notices to the public and workers should be displayed in all three languages
- Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.
- All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.



3.2.12. Safety Gear for Labors

- ❖ Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- ❖ The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- ❖ In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.



3.2.13. Prevention of accidents

- ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction



period. This needs to be ensured with proper barricading, signage boards and lighting etc.

- ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.

3.2.14. Presence of Outside Labor in a Residential Area

- ❖ Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- ❖ The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- ❖ The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- ❖ The Contractor shall at all times, ensure proper handwashing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities
- ❖ The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- ❖ The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfortability for female users and safe access.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce – on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
 - Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
 - A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
 - The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- ❖ Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- ❖ Temporary flooding due to excavation.
- ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Protection of Physical Cultural Resources (PCRs) close to the Site.

- The Contractor shall ensure that protective fencing as agreed with the community and or head of the physical cultural resource (i.e. Buddha Statue at 6°24.535'N, 80°47.648'E and Bo tree and Buddha statue at 6°24.11.54'N, 80°46.59.85'E) is established to avoid any impacts during the civil works.
- The Contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and shall take all requisite measures to ensure so.
- The Contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR.
- Labors shall be briefed to ensure that no acts of vandalism shall be tolerated and shall be penalized. Workers should not be allowed to trespass in to such areas.
- Unless agreed with the community the Contractor shall not block access to any known places of worship or PCRs along the project trace.

3.2.22. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.23. Tree Re-Planting

- ❖ Re-plantation of at least three times (1:3) the number of trees cut should be carried out along the project road.
- ❖ Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- ❖ Survival status shall be reported on monthly basis to Project Engineer in charge.

3.2.24. Clearing/Closure of Construction Site/Labor Camps

- ❖ Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization.
- ❖ On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.

3.2.25. Management of Contractor Operated Quarry and Borrow Sites

3.2.25.1. Burrowing of Earth and Management of Self Operated borrow Sites

- ❖ In the event the Contractor shall use a self-operated borrow site
- ❖ The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- ❖ The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- ❖ No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka

- ❖ Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- ❖ All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- ❖ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- ❖ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in **Annex II** of the CESGP.

3.2.25.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- ❖ In the event the Contractor manages a self-owned existing quarry sites available in the project area
- ❖ They should be operated with a valid IML EPL and trade license
- ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO
- ❖ It is recommended not to seek material from quarries that have ongoing disputes with community.
- ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractor s operations shall be a responsibility of the Contractor.
- ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.26. Procedures for Dealing with Chance Finds

3.2.26.1. Flora and Chance found Fauna

- ❖ The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- ❖ If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- ❖ The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.26.2. Chance Found Archaeological Property

- ❖ All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- ❖ The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- ❖ The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.27. Handling Social and Environmental Issues during Construction

- ❖ The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/social related matters. All public complaints shall be entered into the Complaints Register.
- ❖ The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- ❖ A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the Environmental Officer on complaints thereof.
- ❖ A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- ❖ Trafficking of children (forced/bonded labour) is prohibited under the project.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- ❖ Contractor shall not employ workers below the age of 14 years
- ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- ❖ Contractor to prepare site restoration plans for approval by the engineer.
- ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- ❖ On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.
- ❖ All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- ❖ No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- ❖ The contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

- ❖ The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Venue	Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
		Type of Stakeholder	Number of Participants (M/F)	
SR 21: 100 Mile post Bosirigamathalagahawela via Galwanguwa Road	11.03.2021	Resident	Male	<ul style="list-style-type: none"> • Almost all the people living along the project area is Sinhalese and their religion is Buddhism. • During the construction period dust emissions will be the major issue. • Outside people come to this area to buy agricultural produce such as banana, pepper and manioc. In addition, people come to these villages to buy bricks • Street lamps need to be installed where necessary.
	11.03.2021	Resident	Male	<ul style="list-style-type: none"> • It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road • There are cultivations such as banana, pepper, manioc and vegetables in the area. • Farmers in the area use this road to transport their agricultural produce to market. • School children and public and private sector workers also use this road to go to schools and their working places.

2.23. CESGP of SR 24 - Kolambageara to Bibilegama Yaya Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

**Codes of Environmental and Social Good Practice
(CESGP)**

of

SR24 – Kolabageara to Bibilegama Yaya Road

(2.6km)

Draft Final Report

June 2021

Background KolambageAra to BibilegamaYaya Road

Road length: 2.6 km

Coordinates: Starting Point 6°25'3.03"N, 80°46'56.81"E
End Point 6°26'4.08"N, 80°47'37.96"E

Location: District: Ratnapura
DS Division: Embilipitiya
EE Division: Embilipitiya
GN Divisions: KolambageAra and Thibolketiya

1. Introduction

The KolambageAra to BibilegamaYaya Road (2.6km) starts at Pelmadulla – Embilipitiya – Nonagama (A018) Road and provides a connection to C. P. De Silva Mawatha. The C.P.De Silva Mawathais under the custody of Embilipitiya Pradeshiya Sabha (Local authority). The existing average RoW of the road is around 6m and the average carriageway is 3m. The existing surface comprises concrete, macadam and gravel, and runs through a flat terrain (Min.92m, Max. 116m). The road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.6 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.0m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the KolambageAra to BibilegamaYaya Road is around 6m and the average carriageway is 3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-

Aways...etc. Further, a representative from Embilipitiya Pradeshiya Sabha will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged, and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road. Agriculture is the main source of livelihood of the people in the project area. Banana and manioc are the main agricultural crops grown. Farmers in the area use this road to transport their agricultural produce to the market. School children and the public and private sector workers also use this road to go to schools and their work places.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists. The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Kolabage Ara to Bibilegama Yaya Road will have low-negligible environmental and social including temporary loss of access, noise, dust and vibration impacts that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a Codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to occur.

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:**

There are around 80 households and 13 small shops in the project area. The estimated population is 350. Almost all of them are Sinhala Buddhists. Most of the households fall into middle and low income categories.

- **Land ownership:** There are no squatters along the road. There are private and government lands.
- **Livelihoods:** Agriculture is the main source of livelihood of the people in the project area. Banana, and manioc are the main agricultural crops grown. In addition, there are several bricks manufacturing sites. Some people are engaged in public and private sector jobs.
- **Local organisations:** There are organisations linked with agriculture such as “GoviSamithi” (Farmer Organizations).
- **Community infrastructure and resources:** There is a Buddha statue and a pre - school. Details are provided in Table . During construction period, the access to these places will be temporarily disrupted.. In order to mitigate this impact, the temporary access will be provided. Permanent access will be provided after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	GPS Location		Road Side	Distance from RoW
Buddha statue	6°25.409’N	80°47.075’E	RHS	2m
Pre - School	6°25.843’N	80°47.407’E	LHS	2m

- On-going development projects: None.
- **Visitors to the area:** People from outside people come to the project area to buy agricultural produce.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Pradeshiya Sabha. (Local Authority).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will

				be within the existing RoW
Is the ownership status and current usage of land known?		✓		Land within the RoW is owned to Embilipitiya Pradeshiya Sabha. This land is used for the road
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work is carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a Buddha statue and apre-school (see table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Embilipitiya Police station is responsible for the project area. It is located about 2.7km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Approximately 13 laborers will be recruited for the project. Both skilled and unskilled workers will be used by the contractors.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.

Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	Total number of labor required for the project is approximately 13. Priority will be given to hire the local labors.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province

Sub-project: Kolabageara to Bibilegama Yaya Road (No. 24)

Road Length: 2.6 km

Location: District: Ratnapura
DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterway crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		✓	
- Deterioration of surface water quality due to siltrunoff and sanitary wastes from worker-based camps and chemicals used in construction?		✓	
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civilworks?	✓		Blasting will not be necessary. Noise and vibration may be generated due to most of field construction activities. However Noise and vibration levels of construction activities should be maintained below maximum

			permissible levels of the national standards.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards and avoiding night time construction activities (Applicable along the entire trace).
- Hazardous driving conditions where construction interferes with pre-existing roads?		✓	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will mitigate these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Avoiding possibilities of water stagnation within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?		✓	
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments

Appendix 1: Photos taken along the road

Appendix 2: Location map

Appendix 1- Photographs of Kolabage Ara to Bibilegama Yaya Road



Figure 1: Starting point of the road



Figure 2: Buddha Shrine located at 0.750km on RHS of the road

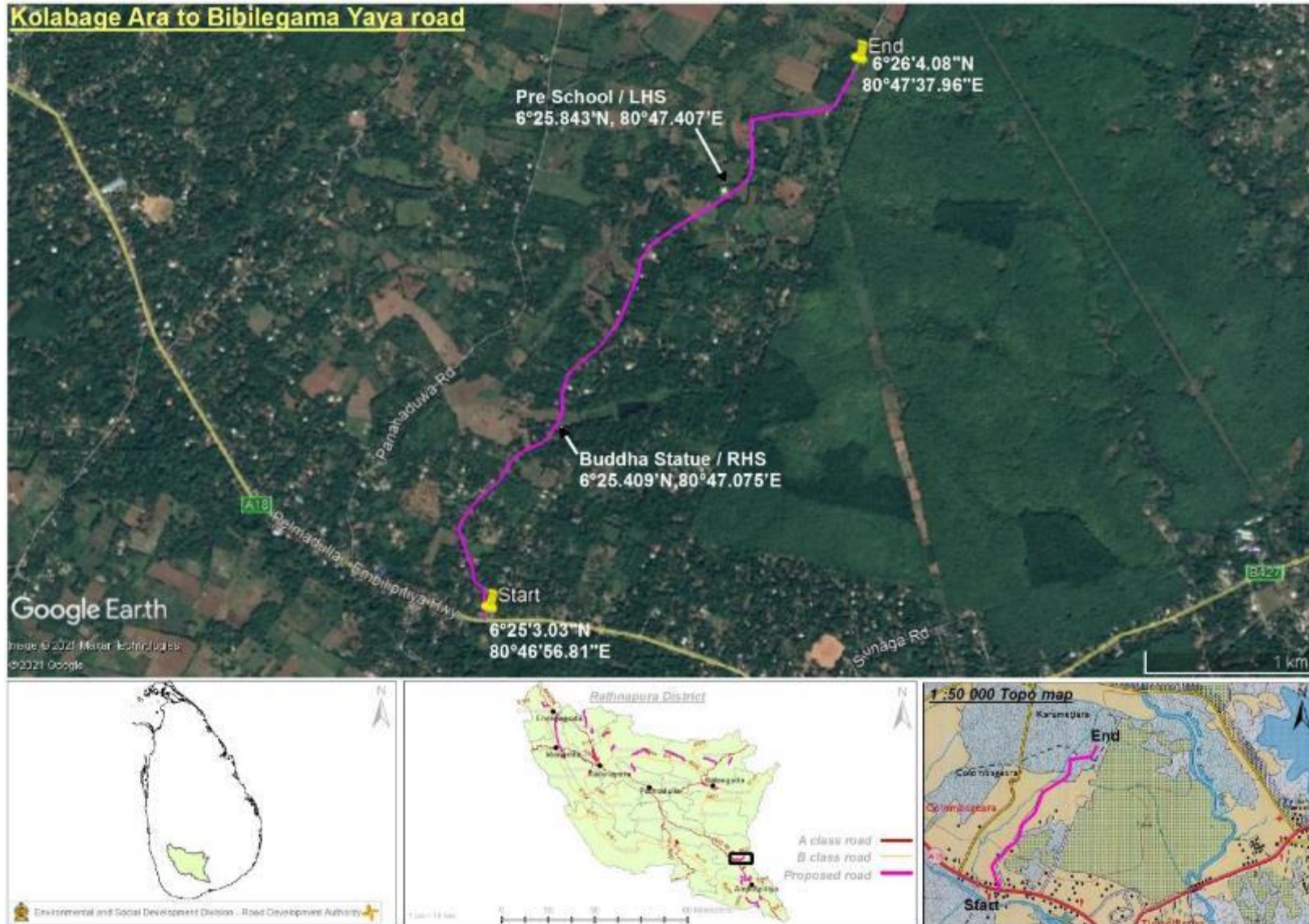


Figure 3: Pre School located at 1.900kmon RHS of the road



Figure 4: End point of the road

Appendix 2 - Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Kolabage Ara to Bibilegama Yaya Road	
Risk Category assigned by E and S Screening	Low Risk
Design Recommendations and guidance	
Design Justification	Guidance to be Used
As per the public road side drains are essential for this road to drain the runoff.	3.2.20 of CESGP
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Codes of Environmental and Social Good Practice (CESGPs) for Codes of Environmental and Social Good Practice (CESGPs) for Kolambage Ara to Bibilegama Yaya Road

1. Preamble

The following CESGP should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to sub-Contractors including nominated sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the contactors on behalf of the Employer the Project Engineer (Referred to as Engineer) shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer (ESSO)** shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings conveyed by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESO to be appointed is included in **Annex I** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his sub-Contractor /s fails to implement the CESGP recommendations. After informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented.

- It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
- The EMSS shall be updated every 3 months and submit for the Project Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1. Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- ❖ The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- ❖ Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- ❖ The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction²⁶.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed.

In such case;

- ❖ The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.²⁷
- ❖ Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- ❖ If any trees that are of importance to the community, such as Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such

²⁶ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.

²⁷ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

trees shall be removed without prior written consent from the Engineer and endorsed by the community.

- ❖ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- ❖ All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- ❖ Compensatory plantation by way of Re-plantation of at least three times the number of trees cut (1:3) should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23).

3.1.3. Construction of labor camps where applicable

- ❖ The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- ❖ The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- ❖ Separate accommodations should be provided with all required facilities for female laborers
- ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- ❖ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- ❖ Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- ❖ If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuances or disturbances are caused to the local communities due to labor misconduct.
- ❖ Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- ❖ Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- ❖ The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- ❖ The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- ❖ The Contractor shall source all borrow materials only from licensed sources.
- ❖ Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.

- ❖ Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- ❖ The Contractor in discussion with the PE if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- ❖ A separate BoQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- ❖ Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor's site staff.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- ❖ The Contractor shall take measures to make the residents and the other stakeholders who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ❖ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- ❖ The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead ways in the locations where required.
- ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- ❖ All efforts must be made to minimize the land donation for the project
- ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- ❖ Contractor shall identify locations where permanent access is blocked for construction.
- ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

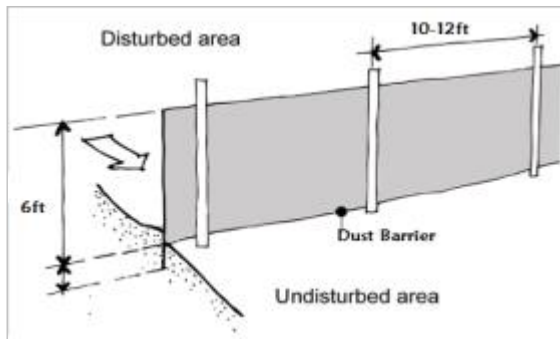
- ❖ Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- ❖ All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

- ❖ All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks (with measures to avoid water collection in them), with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- ❖ Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods.
- ❖ Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



- ❖ The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- ❖ Dust masks should be provided to the laborers for the use at required times.
- ❖ Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- ❖ Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- ❖ All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette

Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.

- ❖ Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- ❖ Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors (e.g pre school)

- ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- ❖ Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include hospitals, schools, places of worship and households.
- ❖ All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- ❖ The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- ❖ The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- ❖ The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- ❖ During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- ❖ The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- ❖ The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.



3.2.8. Protection of topsoil

- ❖ The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- ❖ Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor.
- ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies
- ❖ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- ❖ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- ❖ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- ❖ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.

- ❖ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- ❖ Further Guidance on cost effective measures to follow are presented in **Annex III**.

3.2.10. Pollution from Fuel and Lubricants

- ❖ The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- ❖ Contractor shall arrange for collection storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed-off in accordance with standards set under the National Environmental Act (NEA) or by the Central Environmental Authority of Sri Lanka/Ministry of Environment (CEA/MoE),
- ❖ Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- ❖ The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)
- ❖ The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- ❖ Safety signboards should be displayed at all necessary locations.
- ❖ The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- ❖ All vehicles used in the construction process should be operated by experienced and trained operators under supervision.
- ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities.
- ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.
- ❖ Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in



- an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Notices to the public and workers should be displayed in all three languages
- Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.
- All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.

3.2.12. Safety Gear for Labors

- ❖ Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- ❖ The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- ❖ In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.



3.2.13. Prevention of accidents

- ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as sign board and displayed at the work site.



a

3.2.14. Presence of Outside Labor in a Residential

Area

- ❖ Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- ❖ The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable.
- ❖ The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- ❖ The Contractor shall at all times, ensure proper handwashing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities
- ❖ The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- ❖ The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfortability for female users and safe access.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential

reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce – on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
 - Contractor shall maintain a logbook to record workers’ grievances and complaint/ suggestion boxes can be placed at the supervision consultant’s office.
 - A focal point will be designated to receive the complaints. The contact details of the focal

- Labors shall be briefed to ensure that no acts of vandalism shall be tolerated and shall be penalized. Workers should not be allowed to trespass in to such areas.
- Unless agreed with the community the Contractor shall not block access to any known places of worship or PCRs along the project trace.

3.2.22. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.23. Tree Re-Planting

- ❖ Re-plantation of at least three times (1:3) the number of trees cut should be carried out along the project road.
- ❖ Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- ❖ Survival status shall be reported on monthly basis to Project Engineer in charge.

3.2.24. Clearing/Closure of Construction Site/Labor Camps

- ❖ Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization.
- ❖ On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.

3.2.25. Management of Contractor Operated Quarry and Borrow Sites

3.2.25.1. *Burrowing of Earth and Management of Self Operated borrow Sites*

- ❖ In the event the Contractor shall use a self-operated borrow site
- ❖ The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- ❖ The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- ❖ No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- ❖ Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.

- ❖ All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- ❖ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- ❖ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in **Annex II** of the CESGP.

3.2.25.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- ❖ In the event the Contractor manages a self-owned existing quarry sites available in the project area
- ❖ They should be operated with a valid IML EPL and trade license
- ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO
- ❖ It is recommended not to seek material from quarries that have ongoing disputes with community.
- ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractor's operations shall be a responsibility of the Contractor.
- ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.26. Procedures for Dealing with Chance Finds

3.2.26.1. Flora and Chance found Fauna

- ❖ The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- ❖ If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- ❖ The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.26.2. Chance Found Archaeological Property

- ❖ All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- ❖ The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- ❖ The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.27. Handling Social and Environmental Issues during Construction

- ❖ The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/social related matters. All public complaints shall be entered into the Complaints Register.
- ❖ The Engineer shall promptly investigate and review public complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- ❖ A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the Environmental Officer on complaints thereof.
- ❖ A final report shall be forwarded to the Engineer within 3 Days

3.2.28. Prevention of Sexual exploitation, child trafficking and child labour

- ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- ❖ Trafficking of children (forced/bonded labour) is prohibited under the project.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- ❖ Contractor shall not employ workers below the age of 14 years
- ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- ❖ Contractor to prepare site restoration plans for approval by the engineer.
- ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- ❖ On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.
- ❖ All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- ❖ No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- ❖ The contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

- ❖ The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Gender	
11.03.2021	Resident	Male	<ul style="list-style-type: none"> • It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road . • Agriculture is the main livelihood in the area. Banana and manioc are the main crops cultivated. • Farmers in the area use this road to transport their agricultural produce to the market. School children and public and private sector workers also use this road to go to schools and their working places.
11.03.2021	Farmer	Male	<ul style="list-style-type: none"> • The existing road surface is damaged. • Roadside drains need to be provided where necessary and they should be properly maintained. • When developing this road access need to be provided for houses and commercial institutes located on either side of the road. • Traders come to the project area to buy agricultural produce.

2.24. ESMP of SR 25 - 2nd Mile post to Guruara Galawanguwa Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development
Project (IRCDP)**

Ratnapura District of Sabaragamuwa Province

**Environmental and Social Management Plan (ESMP)
of
SR 25 - 2nd Mile post to Guruwara Galawanguwa Road
(4.4km)**

Draft Final Report

June 2021

Background

2nd Mile post to Guruara Galawanguwa Road

Road length: 4.4km

Coordinates: Starting Point 6°20'9.77"N, 80°49'2.43"E
End Point 6°21'3.04"N, 80°50'4.23"E

Location:

District: Ratnapura
DS Division: Embilipitiya
EE Division: Embilipitiya
GN Divisions: Embilipitiya, Udagama,
NindagamPelessa,
HinguraAra

1. Introduction

The 2nd Mile Post to Guruara Galawanguwa Road (4.4km) starts at Pelmadulla – Embilipitiya – Nonagama (A018) Road. This road is under the custody of Embilipitiya Pradeshiya Sabha (Local authority) and Provincial Road Development Authority (PRDA – Sabaragamuwa Province). The surface of the road is concrete, macadam and gravel. The road runs through flat terrain (Min. 90m, Max. 120m MSL). There are two small streams that the road crosses at 1.9km and 2.7km respectively. The road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 4.4km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.0m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 4 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e. RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the 2nd Mile post to Guruara Galawanguwa Road is around 6m and the average carriageway is 3.1m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha and PRDA (Sabaragamuwa Province) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, representatives from Embilipitiya Pradeshiya Sabha and PRDA (Sabaragamuwa Province) will function as members of the Grievance Redress Committee..

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road. Banana and pepper are the main agricultural crops grown in the area, and improved road conditions will help the farmers to market their produce. School children, public and private sector workers in this area also use this road to go to schools and their work places.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, This subproject i.e. 2nd Mile post to Guruara Galawanguwa Road will have a majority of reversible, small-medium scale environmental and social impacts. The main impacts will be temporary diversion of streams due to culvert reconstruction, temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Management Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to be occurred.

7. Screening of Social Impacts

Impact Area

- **Settlements:** Around 110 households and 12 small shops are in the project area. The estimated population is 460. They are all Sinhala Buddhists.
- **Land ownership:** There are no squatters along the road. The land is private and government owned.
- **Livelihoods:** Agriculture is the main source of livelihood of the people in the project area. Banana and pepper are the main agricultural crops. In addition, there are several brick manufacturing sites. Some people are engaged in public and private sector jobs as well.
- **Local organisations:** There are organisations linked to agricultural activities such as “*GoviSamithi*” (Farmer Organizations).
- **Community infrastructure and resources:** There is a Temple, three Buddha statues and the office of the Grama Niladhari. Details are provided in Table 1. During construction period, e access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1:Community infrastructure and resources

Community infrastructure& resources	GPS Location		Road Side	Distance from RoW
Buddha Statue & Bo Tree	6°21.109’N	80°49.310’E	RHS	Bo tree: 1m Buddha statue: 5m
Buddha Statue	6°20.997’N	80°49.614’E	RHS	1m
Temple	6°20.966’N	80°49.895’E	LHS	60m
Gramaniladhari Office	6°21.013’N	80°49.905’E	LHS	1m
Buddha Statue	6°21.034’N	80°50.066’E	RHS	1m

- **On-going development projects:** None.
- **Visitors to the area:** People from outside come to the project area to buy agricultural produce. In addition people come to these villages to buy bricks.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Pradeshiya Sabha. And PRDA (Sabaragamuwa Province).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		✓		Land within the RoW is owned by Embilipitiya Pradeshiya Sabha and PRDA (Sabaragamuwa Province). This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	

Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is a Temple, three Buddha statues and the office of the Grama Niladhari (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area is under the Embilipitiya Police station which is 6.2km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Approximately 20 laborers will be recruited for the project. Both skilled and unskilled workers will be used by the contractors.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community. There is possibility of bringing outside labor if local labor is not

Will there be workers brought in from outside the project area?		✓		sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	Total number of labor required for the project is approximately 20. Priority will be given to hire the local labors.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project: From 2nd Mile post to Guruara Galawanguwa Road (SR25)
Road Length: 4.4km
Location: District: Ratnapura
 DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		Road crosses two streams at 1.9km and 2.7km. No permanent diversion required. However temporary diversion will be needed at new culvert constructions at 0.08, 1.75, 2.7 and 3.0km and culvert reconstruction locations at 0.3, 0.65, 0.78, 1.1, 1.9, 2.5 and 3.3km. Continuous water flow to the downstream will be facilitated and temporary diversions will be restored to original condition. Soil conservation measures such

			as silt traps and silt fences will be applied to minimize siltation.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Road crosses two streams at 1.9km and 2.7km. However, this impact will be temporary during the construction phase. Application of soil erosion control measures such as silt traps and silt fences and using worker based camps which are approved by local authorities will minimize these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water (based on the weather condition) to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting along the road is not necessary. All civil works shall be managed in compliance with the permissible levels of noise and vibration as specified in the national standards. Night time works shall not be practiced.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		Regular sprinkling of water to suppress dust during the construction phase and avoiding project activities during the night time will mitigate these impacts.(Applicable along the entire road.)
- Hazardous driving conditions where construction interferes with pre-existing		✓	

roads?			
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Securing of local labor as much as possible and location of worker camps if required only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	✓		Wastewater and solid waste shall be properly disposed complying with the relevant standards. Pockets of water stagnation shall be avoided at every construction sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?		✓	
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1- Photographs of 2nd Mile post to Guruara Galwanguwa Road



Figure 1 : Starting point of the road



Figure 2: Along the Road



Figure 3: Buddha Shrine and Bo tree located at 1.520km on LHS of the road

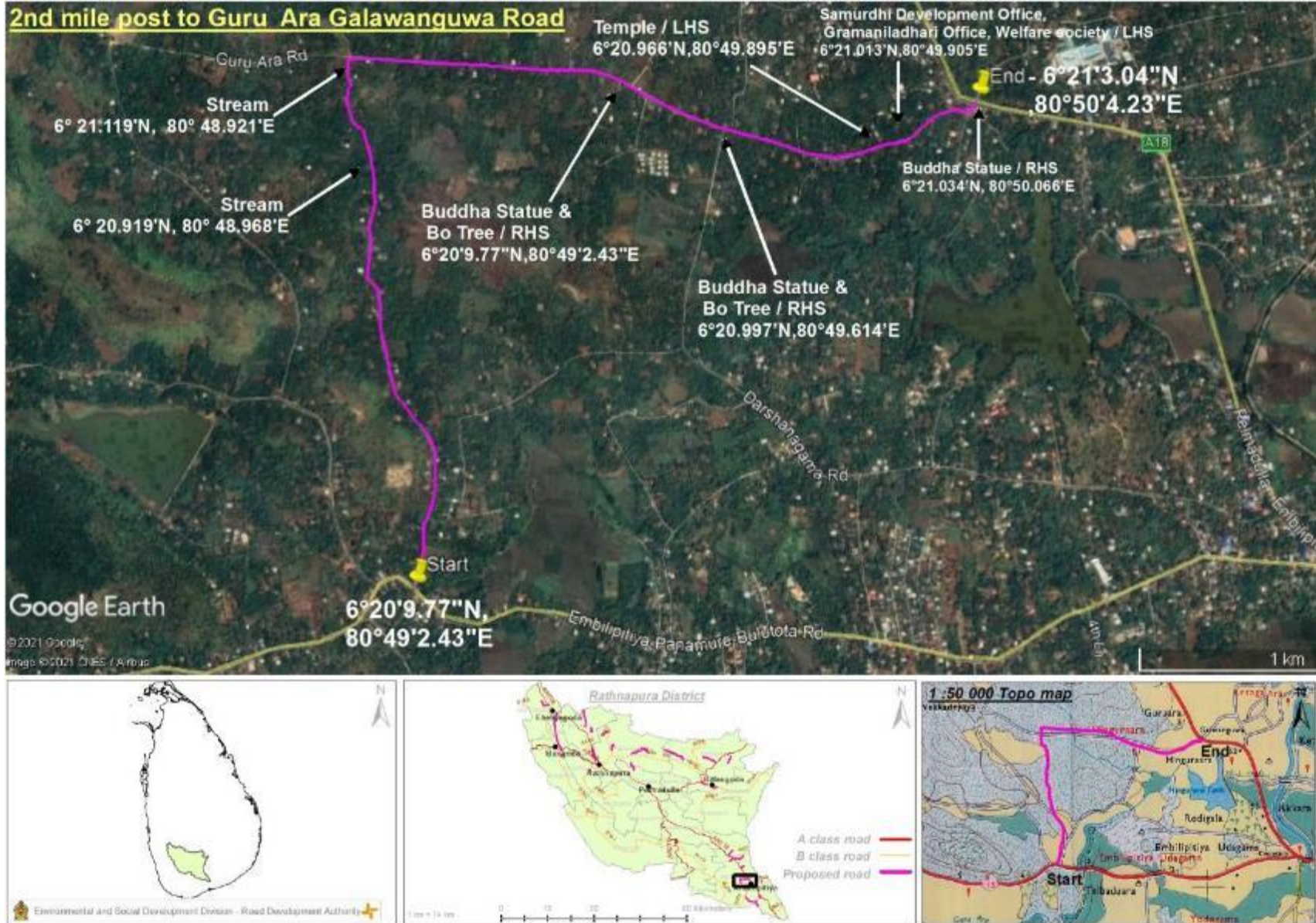


Figure 4: Samurdhi Development Office, Grama Niladhari office and Welfare office located at 1.380 km on LHS of the road



Figure 5: End point of the road

Appendix 2-Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: 2 nd Mile post to Guruara Galwanguwa Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
It is recommended to modify the design ensuring no damage is done to the root system of the Bo Tree located at 1.52km on left hand side due to excavation and compaction.	
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Environmental and Social Management Plan (ESMP) for Rehabilitation of 2nd Mile post to Guruara Galwanguwa Road (SR25)

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
				Implementation	Monitoring
PRE-CONSTRUCTION AND SITE PREPERATION					
1.	Finalization of the Environmental Method Statement on ESMP implementation	<ul style="list-style-type: none"> ❖ Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. ❖ It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. ❖ The EMS shall be updated regularly and submit for the Engineers review and approval. 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer
2.	Tree Removal	<p>As per the preliminary studies removal of road side trees along this road was not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users in compatible with the designs yet to be completed.</p> <p>In such cases,</p> <ul style="list-style-type: none"> ❖ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ❖ The technical justification for the trees that will be required to be removed will be documented accordingly. ❖ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. <ul style="list-style-type: none"> ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Embilipitiya). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer

		<ul style="list-style-type: none"> if any with regard to felling of trees and removal of vegetation. ○ Removed trees of economic value must be handed over to the Timber Corporation. ○ Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	<ul style="list-style-type: none"> ❖ The contractor should give priority to hire labor from the surrounding areas to avoid the need for labor camps. ❖ If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands may be taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer prior to their construction. ❖ The construction of the labor camp will commence only upon the written approval of the Engineer and then from the relevant local authority. ❖ Separate labor camps need to be provided for female migrant laborers. ❖ The instructions for the laborers should be provided in all three languages. ❖ Adequate measures should be provided for proper drainage facilities to the labour camps and to prevent breeding of mosquitoes, flies and other vector borne diseases. ❖ The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. ❖ Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Inspector (PHI) ❖ Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. ❖ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer

		<p>emergency plan shall be prepared to fight with any emergency like fire.</p> <ul style="list-style-type: none"> ❖ All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible ❖ Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work. 			
4.	Material Sourcing	<ul style="list-style-type: none"> ❖ The contractor is required to ensure that sand, aggregates and other quarry material is sourced from sources which are operated with a valid license. ❖ The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. ❖ Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. ❖ If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. ❖ The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water Construction activities for	<ul style="list-style-type: none"> ❖ The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. ❖ Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, Department of Irrigation, CBO) is not allowed. ❖ Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
6.	Work Site for construction materials	<ul style="list-style-type: none"> ❖ The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. ❖ Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. ❖ Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. ❖ The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

7.	Information Disclosure among Stakeholders	<ul style="list-style-type: none"> ❖ Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; <ul style="list-style-type: none"> ○ Residents have to be briefed of the project, purpose and design and outcomes and project’s grievance redress mechanism via a documented community consultation session ○ These sessions need to be conducted in both Sinhalese and Tamil languages, given the ethnic composition of the project area. ○ This should be done immediately once the contractor is mobilized. ○ The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. ❖ The contractor will maintain a log of any grievances/complains and actions taken to resolve them. ❖ In case of any complaint referring to GN and DS level GRM, the contractor should have the copy of the minutes of such decisions. ❖ A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	<ul style="list-style-type: none"> ❖ Efforts shall be taken to minimize use of temporary land for the construction activities ❖ Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country ❖ Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners ❖ The land should be handed over to the owner with a written concurrence once the use is over. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	<p>Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,</p> <ul style="list-style-type: none"> ❖ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ❖ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ❖ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ❖ Advance notice to the public in all local languages about time and the duration of utility disruption ❖ Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT

		<ul style="list-style-type: none"> ❖ Special attention shall be taken to provide relevant services to the public without long delay ❖ Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 			
10.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department and Department of Agrarian Development ❖ Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow ❖ Construction work affecting water bodies should be prevented and work should be scheduled during the dry season ❖ Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor ❖ Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Land donation	<ul style="list-style-type: none"> ❖ Land donation will be involved only for the land required for the design requirements, to improve safety including realignment of bends, to avoid bottle necks or construction of cross drainages, lead-away in the locations where required. ❖ All effort will be made to minimize the land donation for the project ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Grama Niladari and/or Divisional Secretariat. ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
12.	Land Acquisition (if required)	<ul style="list-style-type: none"> ❖ Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Land Acquisition cost	PIU/PMU of RDA	

13.	Identifying locations to provide temporary access	<ul style="list-style-type: none"> ❖ Contractor shall identify locations where permanent access is blocked for construction. ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
CONSTRUCTION PHASE					
14.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	<ul style="list-style-type: none"> ❖ During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. ❖ In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. ❖ During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted ❖ The contractor shall identify the sites for disposal of material cleared. ❖ Plants, shrubs and other vegetation cleared should not be burned on site. ❖ Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following <ul style="list-style-type: none"> ○ The dumping does not impact natural drainage courses ○ No endangered / rare flora is impacted by such dumping ○ Should be located in nonresidential areas located in the downwind side ○ Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies ○ Avoid disposal on productive/agricultural land. ○ should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, ○ Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. ❖ The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. ❖ Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
15.	Protection of topsoil	<ul style="list-style-type: none"> ❖ Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to 	Engineering	Contractor	PMU/PIU/RDA/Consultant

		<p>a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer.</p> <ul style="list-style-type: none"> ❖ If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing ❖ Removed topsoil could be used as a productive soil when replanting trees and during turfing. ❖ Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. ❖ Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. ❖ As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Cost		Engineer
16.	Protection of Ground Cover and Vegetation	<ul style="list-style-type: none"> ❖ Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. ❖ Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer ❖ Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Transport and Storage of construction materials	<ul style="list-style-type: none"> ❖ All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. ❖ Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users ❖ Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. ❖ Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff ❖ Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Emission of Dust	<ul style="list-style-type: none"> ❖ In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>No.17.</p> <ul style="list-style-type: none"> ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned ❖ Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. ❖ Dust masks should be provided to the laborers for the use at required times. ❖ Erection of dust barriers to the public, religious and other socially important locations ❖ Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas ❖ Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 			
19.	Management of Self Operated Borrow Sites	<ul style="list-style-type: none"> ❖ In the event the contractor will use a self-operated borrow site <ul style="list-style-type: none"> ○ Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. ○ Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer ○ No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations ○ Borrow areas shall not be opened without having a valid mining license (Industrial Mining License (IML)) from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. ○ All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the GSMG, CEA and the respective local authority (refer Annex II for guidelines). ○ Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. ○ Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA, GSMB
20.	Quarry Operations and Management of Self Operated Quarry	<ul style="list-style-type: none"> ❖ In the event the contractor manages a self-owned existing quarry sites available in the project area ❖ They should be approved by CEA with valid EPL (Environment 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA,GSMB

	Sites	<p>Protection Licenses) and GSMB with valid IML;</p> <ul style="list-style-type: none"> ❖ Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. ❖ Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. ❖ Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. ❖ It is recommended not to seek material from quarries that have ongoing disputes with community. ❖ The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. ❖ Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 			
21.	Control of Sedimentation and Soil Erosion	<ul style="list-style-type: none"> ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked. ❖ Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. ❖ Silt traps will be constructed to avoid siltation into the water ways where necessary along the road corridor. ❖ To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies ❖ Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. ❖ Temporary soil dumps should be placed at least 200m away from all water bodies. ❖ Top soil shall be prevented to use for tree planting and turfing activities. ❖ In hilly terrain and areas with slopes; <ul style="list-style-type: none"> ○ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. ○ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. ○ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>on actions that will be undertaken by the contractor to prevent erosion.</p> <ul style="list-style-type: none"> ❖ Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. <ul style="list-style-type: none"> ○ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. ○ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. ❖ Refer Annex III. 			
22.	Noise from vehicles, machinery and equipment	<ul style="list-style-type: none"> ❖ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). ❖ Any vulnerable parties for high noise impact residing along the road should be identified in advance and measures as agreed with the Engineer should be implanted to minimize the impact. ❖ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. ❖ All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ❖ Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA
23.	Vehicular noise pollution at residential / sensitive	<ul style="list-style-type: none"> ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

	receptors	<ul style="list-style-type: none"> ❖ The practice must be ensured especially near residential / commercial / sensitive areas. ❖ Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. ❖ All possible and practical measures to control noise emissions during drilling shall be employed. ❖ Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 			
24.	Impacts due to Vibration	<ul style="list-style-type: none"> ❖ Contractor shall take special care at the starting point of the road to protect the Buddha shrine located on Right Side as agreed with the Engineer and the caretakers of the shrine. . ❖ Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration ❖ Any vulnerable parties for vibration impact residing along the road should be identified in advance and measures as agreed with the Engineer should be implanted to minimize the impact. ❖ Prior to commencement of excavation, compaction, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. ❖ The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. ❖ Blasting shall be carried out only with permission of the Engineer and approval from GSMB 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

25.	Pollution of Soil and Water via Fuel and Lubricants	<ul style="list-style-type: none"> ❖ The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies. ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. ❖ All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards specified under the NEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set under the NEA. ❖ Engineer will certify that all arrangements comply with the standards specified under NEA and guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA
26.	Public Safety	<ul style="list-style-type: none"> ❖ At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. ❖ Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. ❖ The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) ❖ Safety signboards should be displayed at all necessary locations. ❖ The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. ❖ All construction vehicles should be operated by experienced and trained operators under supervision. ❖ Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. ❖ All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. ❖ Trenches should be progressively rehabilitated once work is completed. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ Material loading and unloading should be done in an area, well away from traffic and barricaded ❖ Construction wastes should be removed within 24 hours from the site to ensure public safety. ❖ Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 			
27.	Safety of Workers	<ul style="list-style-type: none"> ❖ Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. ❖ The contractor shall supply all necessary safety measures at site. ❖ Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. ❖ Welder's protective eye-shields shall be provided to workers who are engaged in welding works. ❖ Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. ❖ The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. ❖ In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. ❖ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. ❖ All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. ❖ First aid facilities and nursing staff to be provided at work places ❖ Provision of adequate transport facilities for moving injured persons to the nearest hospital ❖ National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks, not allowing large gatherings...etc.) for prevention of the spread of COVID-19 virus will be adhered to. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
28.	Prevention of accidents	<ul style="list-style-type: none"> ❖ Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. ❖ Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> ❖ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times ❖ Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. ❖ Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. ❖ Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so ❖ Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 			
29.	Operation of labor camps	<ul style="list-style-type: none"> ❖ Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations ❖ The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. ❖ Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. ❖ The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. ❖ The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF
30.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	<ul style="list-style-type: none"> ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. ❖ The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks 	Engineering Cost	Contractor	PMU/PIU/RDA./Consultant Engineer MoH

		<p>should be maintained by the contractors site staff.</p> <ul style="list-style-type: none"> ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 			
31.	Prevention of Vector Borne Diseases	<ul style="list-style-type: none"> ❖ Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. ❖ All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ❖ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
32.	Gender issues including Gender base violence	<ul style="list-style-type: none"> ❖ Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. ❖ The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
33.	Issues due to labor influx	<ul style="list-style-type: none"> ❖ Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. ❖ Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease ❖ Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities ❖ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		<ul style="list-style-type: none"> ❖ Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) ❖ Training of workforce – on unacceptable conduct ❖ Informing workers about national laws ❖ Worker Code of Conduct as part of the employment contract ❖ Introduce sanctions for non-compliance (e.g., termination) ❖ Cooperation with law enforcement agencies ❖ Contractor shall maintain a logbook to record workers’ grievances and complaint/ suggestion boxes can be placed at the supervision consultant’s office. ❖ A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. ❖ The workers will be made aware of GRM procedure through toolbox meetings. 			
34.	Traffic Management	<ul style="list-style-type: none"> ❖ Contractor shall develop a traffic management plan with relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. ❖ Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. ❖ Clear instructions should be given if detours are used. ❖ Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them ❖ Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. ❖ Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
35.	Loss of Access due to construction	<ul style="list-style-type: none"> ❖ Temporary access will be provided when permanent access is blocked for construction. ❖ When construction work is in progress in one side, the other side will be opened for traffic & properly ❖ At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
36.	Protection of Physical Cultural Resources (PCRs) close to the Site.	<ul style="list-style-type: none"> ❖ If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. ❖ If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>ensure so.</p> <ul style="list-style-type: none"> ❖ The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. ❖ Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. ❖ Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 			
37.	Loss, Damage and disruption to Flora	<ul style="list-style-type: none"> • All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. • Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. • Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. • If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. • Contractor shall adhere to the guidelines and recommendations made by the CEA/DS, if any with regard to felling of trees and removal of vegetation. • Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. • The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose • The contractor shall build hardy structures around the trees for protection. • The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Fauna	<ul style="list-style-type: none"> • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. • No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
39.	Prevention of the Spread of Invasive Plant Species	<ul style="list-style-type: none"> ❖ There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. ❖ Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<ul style="list-style-type: none"> • Vehicles should be covered during transportation of cleared vegetation to and from the construction site. • Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. • Washing the vehicles should be conducted periodically to prevent carrying any invasive species • The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 			
40.	Chance find procedures for PCRs and Archeological Property	<ul style="list-style-type: none"> • All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. • The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. • The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Surface Drainage and Possible Water Stagnation	<ul style="list-style-type: none"> ❖ Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks ❖ Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. ❖ Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Handling Social and Environmental Issues during Construction	<ul style="list-style-type: none"> ❖ The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters (Environment and Social Safeguards Officer (ESSO)). All public complaints will be entered into the Complaints Register. The Environmental and Social Safeguards Officer will promptly investigate and review public complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. ❖ A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
43.	Prevention of Sexual exploitation, child trafficking and child labour	<ul style="list-style-type: none"> ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. ❖ Trafficking of children (forced/bonded labour) is prohibited under the project. ❖ Institutional arrangement should be adopted to monitor and taking 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		<p>action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.</p> <ul style="list-style-type: none"> ❖ Contractor shall not employ workers below the age of 14 years ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 			
POST CONSTRUCTION					
44.	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> ❖ Contractor to prepare site restoration plans for approval by the engineer. ❖ The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well ❖ On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. ❖ All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. ❖ No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA, /Consultant Engineer PRDA
45.	Environmental Enhancement/Landscaping	<ul style="list-style-type: none"> ❖ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ❖ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
46.	Road furnishing on safety.	<ul style="list-style-type: none"> ❖ The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA, /Consultant Engineer PRDA
47.	Hydrology and drainage	<ul style="list-style-type: none"> ❖ Routine maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
48.	Replanting of trees	<ul style="list-style-type: none"> ❖ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

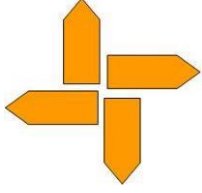
Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Person consulted	Gender	Views raised
11.03.2021	Road User	Male	<ul style="list-style-type: none">• It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road.• School children and other road users will be benefited by this project.• Agriculture is the main livelihood in the project area. Banana and pepper are the main agricultural crops.
11.03.2021	Farmer	Male	<ul style="list-style-type: none">• Agriculture is main economic activity in the area.• Traders come to the project area to buy agricultural produce. In addition, people come to these villages to buy bricks.• There are farmer organizations operating in the area.
11.03.2021	Resident	Male	<ul style="list-style-type: none">• This road is very important road, because this road provides accesses to Pelmadulla – Embilipitiya – Nonagama (A018) Road.• Due to the existing dilapidated road condition road users face transport difficulties.• There are several bricks manufacturing sites in this area.• Some people are employed in public and private sector jobs

2.25. CESGP of SR 26 - Balagara Junction to Kachchigala Ara Lake Road



**Ministry of Highways
Road Development Authority**



**World Bank Funded
Inclusive Rural Connectivity Development Project
(IRCDP)**

**Codes of Environmental and Social Good Practice
(CESGP)**

of

**SR 26 - Balagara Junction to Kachchigala Ara Lake
Road (2.1km)**

Draft Final Report

June 2021

Background

Balagara Junction to Kachchigala Ara Road

Road length: 2.1km

Coordinates: Starting Point 6° 17.211'N 80° 51.760'E
End Point 6° 16.287'N 80° 51.982'E

Location:

District: Ratnapura

DS Division: Embilipitiya

EE Division: Embilipitiya

GN Divisions: Thunkama, Higura

1. Introduction

The Balagara Junction to Kachchigala Ara Road provides access to Talawa Dambarella Hingura road and agricultural and residential areas. This road is under the custody of Embilipitiya Pradeshiya Sabha (Local authority). The existing average RoW of the road is around 8m and the average carriageway is 3.5m. The surface of the road is gravel, concrete and damaged macadam. The road traverses along a flat and undulating terrain and elevation of the trace varies between 58– 81m MSL. The road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.1km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Balagara Junction to Kachchigala Ara Road is around 8m and the average carriageway is 3.5m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha (Local authority) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Embilipitiya Pradeshiya Sabha will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The road development is important as the road surface is damaged macodom. It will facilitate more frequent public transport services.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaissance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtain other relevant information required for the preparation of social checklists. The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, This subproject i.e. Balagara Junction to Kacchigala Ara Road will have low-negligible environmental and social impacts including temporary water quality impacts of irrigation canals, dust, noise and vibration that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts

7. Screening of Social Impacts

7.1 Project Impact Area

- **Settlements:**

There are about 28 households and 06 small shops on both sides of the road. The estimated population is around 130. They are Sinhala Buddhists by ethnicity and religion.

- **Land ownership:** There are no squatters along the road. All the lands are private and government.
- **Livelihoods:** Chena cultivation is the dominant agricultural practice in the area and it is the main source of income. Some people are engaged in public and private sector jobs as well.
- **Local organisations:** There are Farmer organizations in the area
- **Community infrastructure and resources:** There is a Buddha shrine together with a Bo Tree and one school along the road, details of which are provided in Table 1. During construction period, access to these places will be temporarily disrupted. In order to mitigate this impact temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location - GPS Coordinate		Chainage	Road side	Distance from RoW
Kachchigala Primary School	6° 16.210'N	80° 51.380'E	1+930	RHS	4.2m
Buddha Shrine with Bo Tree	6° 16.287'N	80° 51.982'E	2+240	RHS	4.8m.

- **On-going development projects:** None.
- **Visitors to the area:** Kachchigala Primary School is located in the project area. Teachers come to this school from outside areas.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Pradeshiya Sabha.

Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		Land within the RoW is owned to Embilipitiya Pradeshiya Sabha. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			✓	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?)			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			✓	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			✓	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			✓	
Is the project area located near schools, clinics, hospitals, places of worship?		✓		There is one Buddha shrine with Bo Tree and one school along the road (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Embilipitiya Police station which is 2.2km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			✓	
Is there sufficient street-lighting, use of video or CCTV for monitoring public			✓	

spaces in the project location?				
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 15 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?		✓		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 15. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project

Sub-project: Road from Balagara Junction to Kachchigala Ara Lake (SR26)

Road length: 2.1km

Location:

Province: Sabaragamuwa Province

District: Rathnapura District

DS Division: Embilipitiya Divisional Secretary Division

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause...			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permanent alteration of streams. However waterway at 1.8km where culvert will be reconstructed will be temporary altered. Continuous water flow to downstream will be facilitated during

			construction phase and waterway will be restored to original condition.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		The road ends just passed the causeway of Kachchigala Ara. An irrigation canal flows parallel to the road from 0.3km to 1.6km. Site specific mitigation measures such as silt traps shall be applied in order minimize water quality impacts resulted due to civil works. Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Local air pollution will be slightly increased at crushing plants, batching plant, asphalt plant and construction sites during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting is not necessary. Sensitive Receptors is given in the screening checklist to determine the level of social impacts in the table on question 06. Noise and vibration will be

			increased construction site during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards.
- Hazardous driving conditions where construction interferes with pre-existing roads?	✓		Some sections of the road surface are intermittently damaged and gravel surfaces are eroded. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize

			these impacts
- Creation of temporary breeding habitats form mosquito vectors of disease?	✓		Stagnation of water in empty cans, containers, tyres etc. shall be prevented and continues site supervision shall minimize these impacts.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1- Photographs of Road from Balagara Junction to Kachchigala Ara Lake



Figure 1: Starting point of the Road



Figure 2: Along the road



Figure3: Kachchigala Vidyalaya located at 1.930 on LHS of the road



Figure 4: Along the road



Figure 5: An irrigation canal crossing at 2.070 km



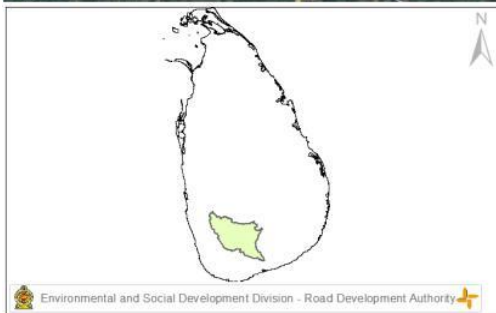
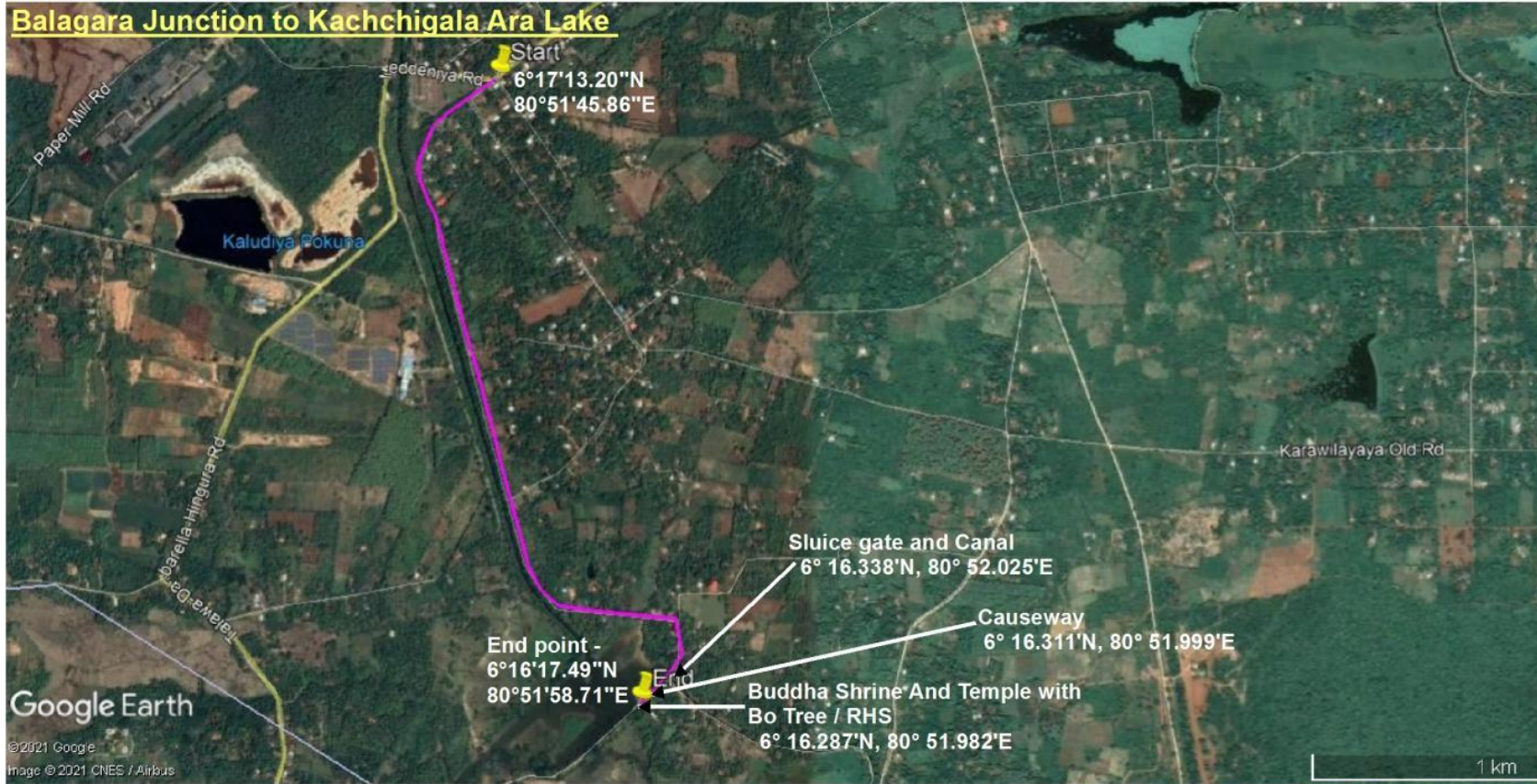
Figure 6: Temple located at 2.240 km on LHS of the road



Figure 7: End point of the road

Appendix 2 – Location Map

Balagara Junction to Kachchigala Ara Lake



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Balagara Junction to Kacchigala Ara Road	
Risk Category assigned by E and S Screening	Low Risk
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Irrigation Department should be consulted in advance for road design in relation to irrigation structures and their recommendations if any should be incorporated to the design.	
Safety measures such as speed barriers, pedestrian crossings and other safety sign boards to be introduced to the design at the Kachchigala Primary School at 1.93km.	
Details of Internal Submission of Design Recommendations	
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

Codes of Environmental and Social Good Practice (CESGP)

1. Preamble

The following Codes of Environmental and Social Good Practice (CESGP) prepared for Balagara Junction to Kachchigala Ara Road of Ratnapura District should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to Sub-Contractors including nominated Sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the Contractors on behalf of the Employer the Project Implementation Consultant (PIC) also referred to as Engineer shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer (ESSO)** shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings conveyed by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESSO to be appointed is included in **Annex I** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities (BOQ) prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements to be done during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements to be done during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his sub-Contractor/s fails to implement the CESGP recommendations, after informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.

- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.
- It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
 - The ESMS shall be updated every 3 months and submit for the Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1. Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction²⁸.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed. In such case;

- ❖ The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.²⁹
- ❖ Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- ❖ If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such

²⁸ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.

²⁹ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

trees shall be removed without prior written consent from the Engineer and endorsed by the community.

- ❖ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- ❖ All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- ❖ Compensatory plantation by way of Re-plantation of at least thrice the number of trees cut should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.22.

3.1.3. Construction of labor camps where applicable

- ❖ The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- ❖ The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- ❖ Separate accommodation should be provided with all required facilities for female laborers
- ❖ All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer’
- ❖ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- ❖ Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- ❖ If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuisances or disturbances are caused to the local communities due to labor misconduct.
- ❖ Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- ❖ Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- ❖ The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- ❖ The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- ❖ The Contractor shall source all borrow materials only from licensed sources.
- ❖ Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.

- ❖ Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the Engineer if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- A separate BOQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- ❖ The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health Inspectorss and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- ❖ The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- ❖ The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site.
- ❖ Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff.
- ❖ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- ❖ Contractor shall consult the Irrigation Department in advance and necessary modifications shall be made to ensure the design will meet their requirements.
- ❖ The Contractor shall take measures to make the residents who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ❖ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.

- ❖ The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- ❖ Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- ❖ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- ❖ All efforts must be made to minimize the land donation for the project
- ❖ Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- ❖ Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- ❖ Contractor shall identify locations where permanent access is blocked for construction.
- ❖ The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- ❖ In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- ❖ If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

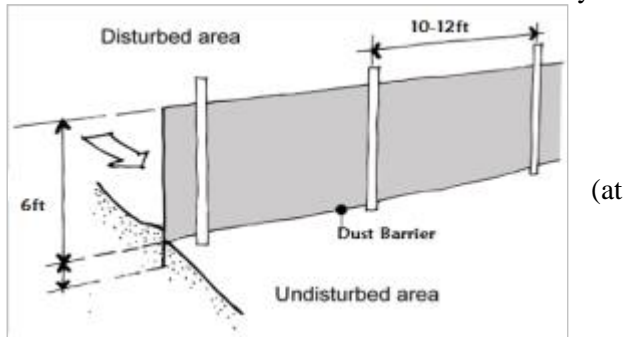
- ❖ Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- ❖ All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- ❖ Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

- ❖ All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires (with measures to avoid water collection in them) or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- ❖ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- ❖ Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four times a day) as the levels of dust can be elevated during dry periods.
Especial attention should be paid to the Kachchigala School at 1.93km.
- ❖ Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



- ❖ The minimum height of barriers should be 6ft . Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- ❖ Dust masks should be provided to the laborers for the use at required times.
- ❖ Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- ❖ Construction activities along the road and use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
E.g. – Around Kachchigala Primary School at 1.93km

- ❖ All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- ❖ Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- ❖ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- ❖ Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors (E.g. – Kachchigala Primary School at 1.93km)

- ❖ Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- ❖ Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include, the pre-school, places of worship and households.
- ❖ All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- ❖ The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- ❖ Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- ❖ Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- ❖ The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- ❖ Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- ❖ Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- ❖ The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- ❖ Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- ❖ Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- ❖ During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- ❖ The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- ❖ The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8 Protection of topsoil

- ❖ The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- ❖ Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- ❖ Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor. Appropriate silt control measure as given in Annex 3 should be applied at the edge of the road along the irrigation canal from 0.3 – 1.6 on right hand side to minimize contamination of the irrigation canal with soil washed off from the road.
- ❖ To avoid siltation, drainage paths should not be directed to waterways and they should be separated from such water bodies
- ❖ Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- ❖ These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- ❖ During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- ❖ All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- ❖ Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.



- ❖ The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- ❖ Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- ❖ All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- ❖ Further Guidance on cost effective measures to follow are presented in **Annex III**.

3.2.10. Pollution from Fuel and Lubricants

- ❖ The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- ❖ Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- ❖ Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed off in accordance with standards set under the National Environmental Act or by the Central Environmental Authority of Sri Lanka/Ministry of Environment(CEA/MoE),
- ❖ Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)
- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.
- Basic onsite safety training should be conducted for all laborers during the EMP training prior to the start of the construction activities.
- All digging and installation work should be completed in one go, if this task is not accomplished the area



should be isolated using luminous safety tape and barricading structures surrounding the whole area.

- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Special attention should be paid at the Kachchigala Primary School where all construction activities should be done under continuous supervision during the schooling hours and a safe, clearly barricaded access should be facilitated to children to the school.
- Safety Gear for Labors
- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.
- Notices to the public and workers should be displayed in all three languages
- Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.
- All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.



3.2.12. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.



3.2.13. Presence of Outside Labor in a Residential Area

- Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.14. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.15. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<https://www.hpb.health.gov.lk/en/covid-19>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper handwashing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.16. Prevention of Vector based Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.17. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.

- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfort ability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.18. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce – on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
 - Contractor shall maintain a logbook to record workers’ grievances and complaint/ suggestion boxes can be placed at the supervision consultant’s office.
 - A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
 - The workers will be made aware of GRM procedure through toolbox meetings.

3.2.19. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.20. Protection of Physical Cultural Resources (PCRs) close to the Site.

The Contractor shall ensure that protective fencing as agreed with the community and or head of the physical cultural resource (i.e.Buddha Statue and Bo tree at 6° 16.287'N, 80° 51.982'E) is established to avoid any impacts during the civil works.

- Contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and shall take all requisite measures to ensure so.
- The Contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR.
- Labors shall be briefed to ensure that no acts of vandalism shall be tolerated and shall be penalized. Workers should not be allowed to trespass in to such areas.
- Unless agreed with the community the Contractor shall not block access to any known places of worship or PCRs along the project trace.

3.2.21. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.22. Tree Re-Planting

- Re-plantation of at least thrice (1:3) the number of trees cut should be carried out along the project road.
- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years .
- Survival status shall be reported on monthly basis to the Engineer.

3.2.23. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.

3.2.24. Management of Contractor Operated Quarry and Borrow Sites

3.2.24.1. Borrowing of Earth and Management of Self Operated Borrow Sites

- In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka

- Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in **Annex 2** of the CESGP.

3.2.24.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be operated with a valid IML EPL and trade license
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor's operations shall be a responsibility of the Contractor.
- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.25. Procedures for Dealing with Chance Finds

3.2.25.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.25.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.26. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the Environmental Officer on complaints thereof.
- A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- ❖ Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- ❖ Trafficking of children (forced/bonded labour) is prohibited under the project.
- ❖ Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- ❖ Contractor shall not employ workers below the age of 14 years
- ❖ If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.
- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

- The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for the stakeholder consultation carried out at the national level for the IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
12.03.2021	GramaNiladari, Thunkama	Male	<ul style="list-style-type: none">• Majority of people living along the road are Sinhalese. Buddhism is the religion of this population.• One public transport, a bus is operating on this road.• Kachchigala Primary School is located in the project area. Teachers come to this school from the outside areas.
11.03.2021	Shop Owner	Female	<ul style="list-style-type: none">• Agriculture is the main livelihood activity in the area.• At the moment, only one bus is operating on the road. After developing this road, public bus services will increase.• School going children, farmers, office workers, and business community in the area are the main road users of this road.
11.03.2021	Businessman	Male	<ul style="list-style-type: none">• The existing road surface is damaged, so this road development is very good.• Agriculture is the main economic activity in the area.• After the road development land values will increase, travel time will decrease, and vehicle maintenance cost will reduce.

Chapter 3: Design Drawings

Design drawings prepared for each subproject from SR01 to SR26 are attached in Annex V of this document. Design drawings are comprised of;

- ❖ Package details
- ❖ Proposed road improvement types
- ❖ Proposed cross sections according to existing ROW and site condition

Annexes

Annex I: Terms of Reference for Recruitment of Contractor Environmental and Social Safeguards Officer (ESSO)

The Contractor through an appointment of dedicated / qualified Environmental and Social Safeguards officer (ESSO) shall be responsible in implementation of ESMP/CESGP requirements by;

- a) Maintaining up-to-date records on actions taken by the Contractor with regards to implementation of ESMP/CESGP recommendations and public complians.
- b) Timely (weekly) submission of reports, information and data on compliance to the Engineer /Implementation Agency and or where applicable to the Senior Environmental Safeguards Specialist/Senior Safeguards Social Specialist of the Implementing Agency through Engineer/Supervision consultant (SC).
- c) Participating in the meetings conveyed by the Engineer and
- d) Any other assistance requested by the Engineer in terms of handling compliance issues on site with regard to E and S issues identified.

The ESSO shall be the primary focal point of contact for the assistance with all environmental and social issues during the pre-construction and construction phases and shall ensure all site management activities are completed in accordance with the ESMP/CESGP at the point of demobilization. He/ She shall be responsible for ensuring the implementation of the ESMP/CESGP and as the appointed officer should be available on the site fulltime basis during the project period and ensure the Environmental and Social Method Statement.

The ESSO shall promptly investigate and review environmental related complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints or impacts identified as specified in the ESMP/CESGP and where applicable seek guidance from the Engineer. A register of all complaints is to be passed to the Engineer within 24 hrs they are received, with the action taken by the ESSO on complains thereof. In addition, ESSO is required to perform following tasks as well;

1. Prepare a monthly ESMP/CESGP implementation checklist report, including photo documentation of implementation and submit it to the Project Engineer.
2. Participation for the periodic Grievance Redressing Committee Meetings at Village Level, Implementation Agency Level and PMU/PIU Level as applicable and requested by the Engineer.
3. Ensure the implementation of the ESMP/CESGP by all Contractor/Sub Contrator workers on site and report any issues to the Engineer.

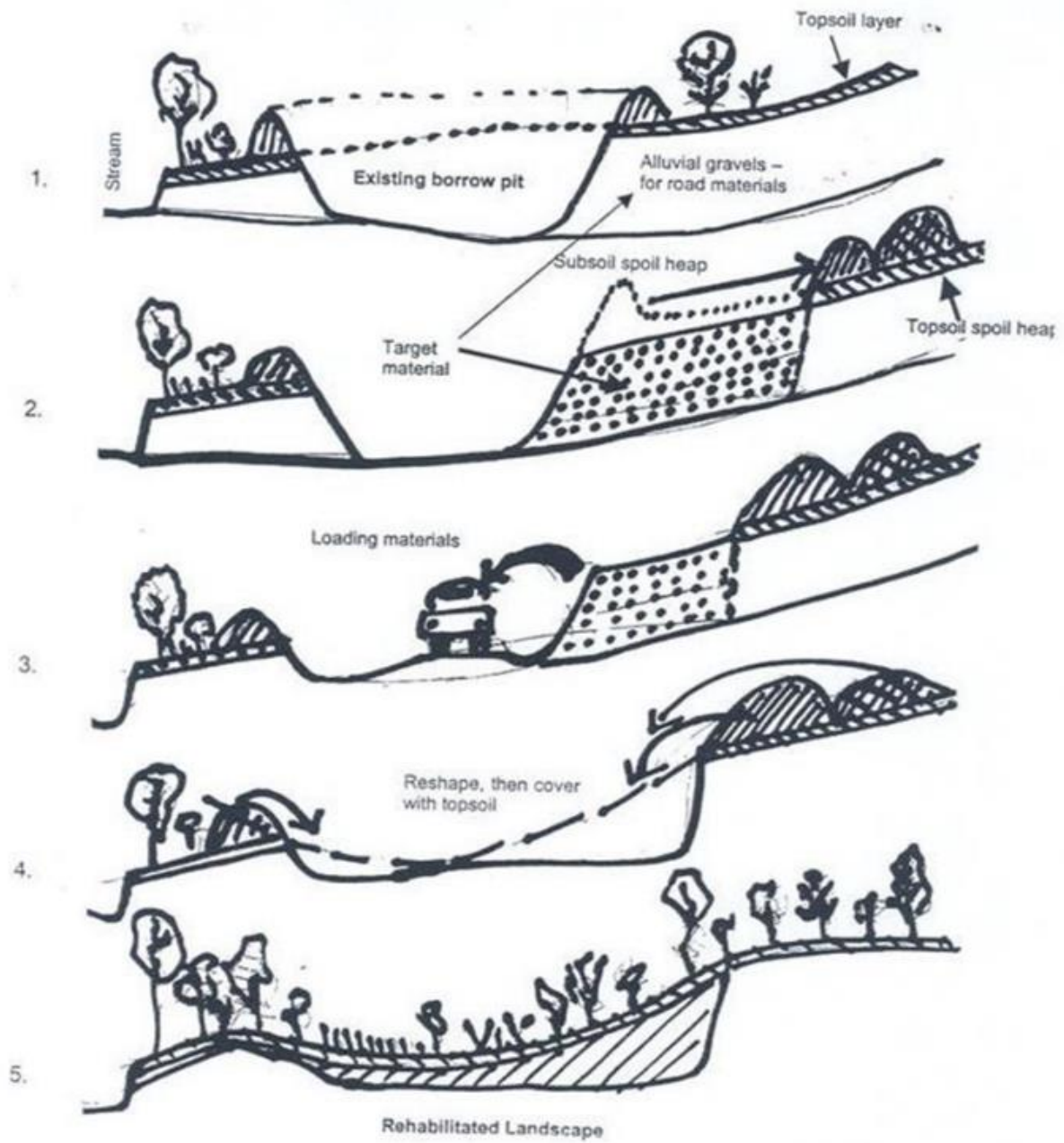
Qualifications required

Environmental Social Safeguards Officer preferably possessing a bachelor's degree with minimum of 2 years experiences in the relevant field or minimum of four (4) years of experiences in the similar capacity. Preferably, experience in specific project related works is required.

It is essential to have both Sinhala & English language ability (speaking) and Computer Knowledge of MS Office.

Annex II: Guidelines for the Rehabilitation of Borrow Pits

Illustration on the Borrow Pit Rehabilitation



Mitigation Measures to be implemented

The following conditions must follow by the Contractor during the construction period in borrowing earth:

- The sides of the pits should be sloped with a minimum angle of 1:3, to enable the escape of animals that may accidentally fall into the pits.
- The borrow pits should be restored by filling them or when it is not practical to rehabilitate them as small tanks/water holes enabling wild animals to use as a water source
- The earth borrowing activity at the identified site should be carried out only during the given time period of from 6.00 am to 6.00 pm
- Borrowing earth, transportation and unloading should be carried out under the inspection of Assistant Director (Mahaweli/Irrigation) or an officer appointed by him
- A 15-cm topsoil will be stripped off from the borrow pit and this shall be stored in stockpiles in a designated area for height not exceeding 2m and side slopes not steeper than 1:2 (Vertical: Horizontal).
- Suitable drainage ditches or conduits shall be constructed or installed to avoid conditions where small pools of water that are, or are likely to become noxious, or foul, collect or remain on the borrow area. Surface drainage must be designed to minimize erosion during runoff and major rainfall events.
- Borrow Pit shall be backfilled with clean or inert fill. There shall be no material of deleterious nature (i.e. any material that would be classed as hazardous or waste). Please refer to the diagram above for the Illustration on borrow pit rehabilitation.
- Non-usable material including overburden, screenings and rocks, should be placed in the pit bottom and covered with Topsoil stripped from the surface so as to facilitate water seepage, planting grass and tree planting to be carried out using the Native trees.
- Once the site is reclaimed, any fences where they exist shall be removed to permit re-vegetation.
- Access and haul roads to the pit must be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
- Above conditions should be included in the contract document and must monitor whether they are followed.
- Precautions must be taken to minimize spreading of the listed invasive species.
 - Destroy the listed invasive plants as much as possible prior to borrowing material.
 - Surface soil of the borrow site should be separated and stored to prevent transporting seeds of the invasive plants to the tank. This surface soil can use when restoring the borrow pit.
 - When restoring the invasive plants if any germinated in soil should be removed and burn.
 - Wash down of all vehicles that use to transport borrow materials before leaving the site

Annex III: Detailed Method for Control of Erosion Contract During Construction Phase

i. Prescribed Method of Erosion Control Matting

Description

- The design specifications as well as locations should be finalized during the Project Preparation Phase. During the execution period in post-construction stage, PIU must ensure that all the guidelines are to be followed as per specifications during the site preparation and installation of erosion control matting. Following are the steps need to be followed for the placing erosion control matting:

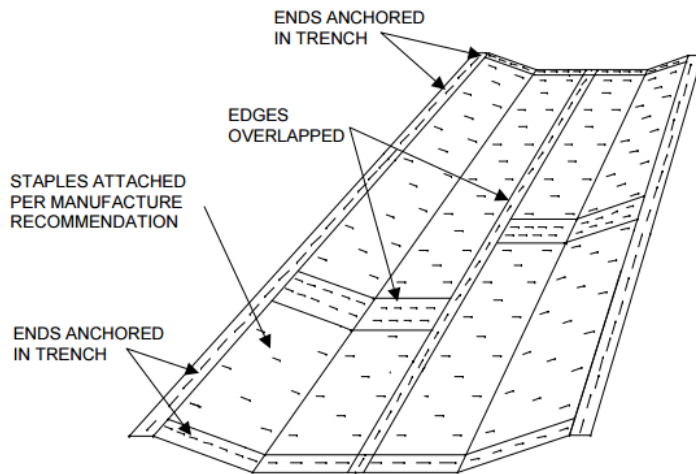
Site Preparation

- The areas should be fertilized and seeded.
- A smooth surface free of depressions that allows water to collect or flow under matting is required.
- The soil should be left with loose surface after seeding.
- The material should be steel wire formed into “U” shape and should be 15 cm to 25 cm long.

Installation

- Filter fabric made of biodegradable material (eg. Choir Matting/ Jute) should be placed horizontally on the slope less than 2:1
Prior to netting, a 10 cm anchor trench should be dug at the top and toe of the slope with the top trench placed
- 30 cm back from the crown, or a berm over which the fabric can be carried.
- For horizontal application, work must proceed from the bottom towards the top of the slope with a 10 cm overlap.
- Cutting material should be folded less than 7.5 cm to 10 cm at the end, stapled and covered.
- Staples should be placed at a spacing of 22.5 cm to 30 cm apart in the trenches along the horizontal lap joints.





List of Common Placement/Installation Mistakes to Avoid

- Ensure the ends are properly secured.
- Install a sufficient number of staples to hold the blanket in place.
- Overlap the blanket to ensure water that flows on top of the blanket and is unable to flow under the blanket.

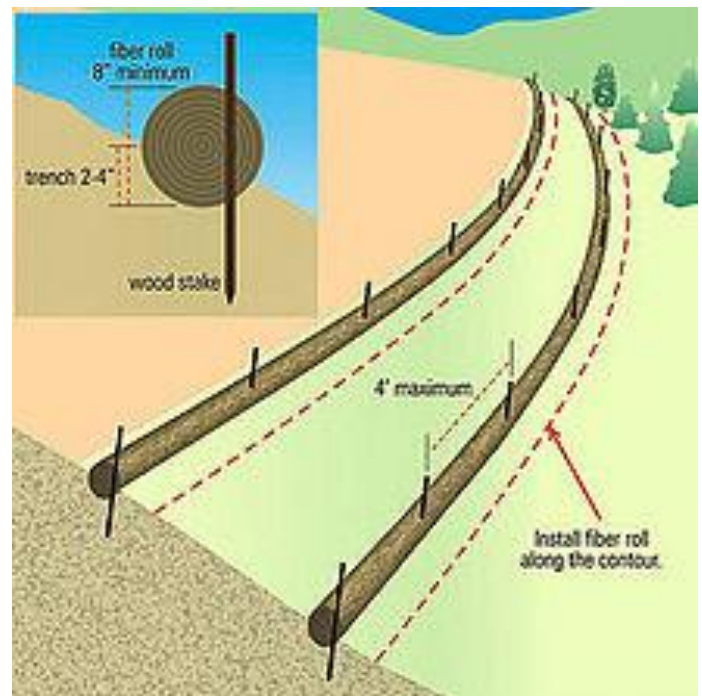
ii. Detailed Specification for Brush Barriers

Description

- A brush barrier is a temporary barrier used to control sediment transport by using the residue materials available from clearing and grubbing.

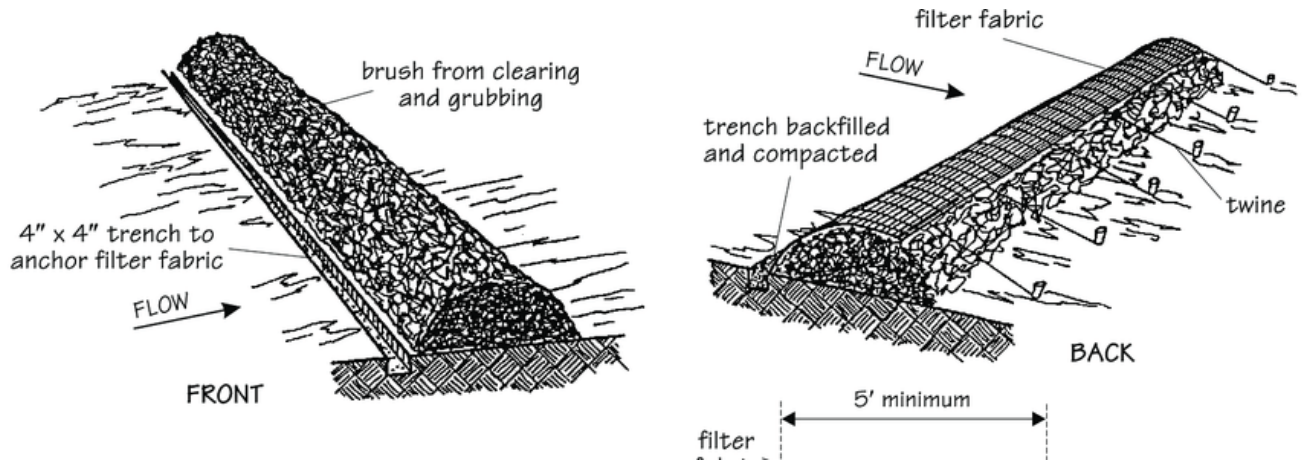
Design and Construction Criteria

- Brush should be cut and windrowed approximately 3 m from the toe of the slope. The brush barrier should be packed densely and should be a minimum of 1.2 m high before compressing.
- This may be accomplished during clearing and grubbing by having equipment push the brush, tree trimmings, shrubs, stones, root mats, and other materials into a mounded row on the contour. Logs placed within the barrier, parallel to the toe, can help reduce failures.
- A brush barrier may be compressed by running a bulldozer along the top of the windrow. The compressed barrier should be 0.9 m to 1.5 m high and 1.5 m to 3.0 m wide. The top of the barrier should be at least 1.5 m below the finished roadway.
- A brush barrier may be left in place after construction unless it is in an aesthetically sensitive area or it is indicated otherwise on plans.



Maintenance

- Inspect a brush barrier after each rainfall and make necessary repairs. Sediment deposits should be removed when they reach approximately half the barrier's height.



Annex IV: National level stakeholder consultation

Date	Issues Raised by Participants	By Whom	Responses by the Project Team
27.04.2021	<p>Have received information about the IRCDP. There are roads owned by Provincial Road Development Authority in frontrunner list and these roads needs to be developed. Development of rural roads was ignored in the past. People like to donate lands for the road development as road is important to them. Therefore, its good if the road can be widened. The development of drain system along the roads is also important when developing the roads. If not, the storm water flows on the roads and road get damaged. And, passing bays needs to be incorporated, otherwise, as two vehicles cannot pass from each other. Ratnapura district is a land slide prone area and this needs to be considered. Doing the development without creating environmental issues is important.</p>	<p>Deputy Director, Local Governments, Provincial Council, Sabaragamuwa.</p>	<p>The concerns on landslides, drain system along the road and incorporation of passing bays will be considered by the project.</p>
27.04.2021	<p>It is good to develop these provincial roads. And, its good if the total length of roads can be developed. The bends of these roads needs to be improved and its good, if the road widening is possible. When Road Development Authority develops provincial roads, it is easy for the council and then, council can consider the development of roads under local authorities.</p>	<p>Director, Roads, Provincial Council, Sabaragamuwa.</p>	<p>Improvements of bends will be considered by the project for future improvements.</p>
27.04.2021	<p>Passaramulla – Denagama – Nelliwala (SR1) road is located in this PS. This road is essential to be developed as it connects with Balangoda – Hatton road and Colombo – Badulla road. There are tea and vegetable cultivations and road development will facilitate the transport of these agricultural produce. The Udugama school will be upgraded to a national</p>	<p>Chairman, ImbulpePradeshiya Sabah</p>	<p>People and political authority will be informed about proposed development prior to starting of civil works.</p>

Date	Issues Raised by Participants	By Whom	Responses by the Project Team
	<p>school soon, and this is the only road to reach the school. Further, this is the main road for people living in around 20 GN divisions. There are no environmental issues in this road. It is good if the road can be widened. The people and the political authority in the area should be made aware of the proposed development prior to starting of civil works.</p>		
27.04.2021	<p>It is good to develop rural roads. Within this PS, a PRDA road is selected for the development under frontrunner list. There is an estate population living in this area. These roads are footpaths earlier and now the roads have been widened. The land donation is acceptable, and people will donate lands if required, for the development. There will be no environmental issues. Inform all people living in this PS area, about the development prior to starting of civil works.</p>	<p>Chairman, Imbulpe Pradeshiya Sabah</p>	<p>People will be informed about proposed development prior to starting of civil works.</p>

Annex V: Design Drawings