



# Environmental Monitoring Report

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Project Number: 50301-002  
Loan Numbers: Tranche 1 – 3579 /3580  
Annual Report  
January 2020

## SRI: Second Integrated Road Investment Program – Tranches 1 PIC 06 – Uva Province

Prepared by the Road Development Authority, Ministry of Roads and Highways for the Asian Development Bank.

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**DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**  
**MINISTRY OF ROADS AND HIGHWAYS**  
**ROAD DEVELOPMENT AUTHORITY**



**LOAN No. 3579 / 3580 - SRI: SECOND INTEGRATED ROAD INVESTMENT PROGRAMME**

**Consulting Services for Project Implementation including Construction Supervision, Contract Management and other Implementation activities in Uva Province (PIC06)**

**Annual Environmental Compliance  
Monitoring Report  
January to December - 2019**



**Prepared by:**  
**Pyunghwa Engineering Consultants Ltd**  
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**Consulting Engineers and Architects Associated**  
**(Pvt) Ltd**



**Submitted to:**  
**Road Development Authority**  
**MINISTRY OF ROADS AND HIGHWAYS**

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## ABBREVIATIONS

<b>ADB</b>	Asian Development Bank
<b>AIDS</b>	Acquired Immunodeficiency Syndrome
<b>ARE</b>	Assistant Resident Engineer
<b>CEA</b>	Central Environmental Authority
<b>CRCs</b>	Conventional Road Contracts
<b>CSD</b>	Context Sensitive Design
<b>DE</b>	Design Engineer
<b>DPM</b>	Deputy Project Manager
<b>DoFC</b>	Department of Forest Conservation
<b>DoWC</b>	Department of Wildlife Conservation
<b>EARF</b>	Environmental Assessment and Review Framework
<b>ECOP</b>	Environmental Code of Practice
<b>EMAP</b>	Environmental Management Action Plan
<b>EMC</b>	Environmental Monitoring Checklist
<b>EMP</b>	Environmental Management Plan
<b>ES</b>	Environmental Specialist
<b>ESDD</b>	Environmental & Social Development Division
<b>ESO</b>	Environmental Safeguard Officer
<b>ESSO</b>	Environmental and Social Safeguard Officer
<b>EWCD</b>	Elderly Women Child Disable Friendly Designs
<b>FFPO</b>	Fauna & Flora Protection Ordinance
<b>GAP</b>	Gender Action Plan
<b>GIS</b>	Geographical Information System
<b>GND</b>	Grama Niladari Division
<b>GoSL</b>	Government of Sri Lanka
<b>GRM</b>	Grievance Redress Mechanism
<b>HIV</b>	Human Immunodeficiency Virus
<b>IA</b>	Implementation Agency
<b>IEE</b>	Initial Environmental Examination
<b>iRoad (Uva)</b>	Integrated Road Investment Programme Southern Province
<b>LARP</b>	Land Acquisition and Resettlement Plan
<b>ME</b>	Material Engineer
<b>MoMD&amp;E</b>	Ministry of Mahaweli Development and Environment



<b>MMF</b>	Multi-Tranche Financing Facility
<b>MoR&amp;H</b>	Ministry of Roads and Highways
<b>NEA</b>	National Environmental Act
<b>OPRC</b>	Output & Performance Based Road Contracts
<b>PAA</b>	Project Approving Agency
<b>PE</b>	Project Engineer
<b>PIC</b>	Project Implementation Consultants
<b>PIU</b>	Project Implementation Unit
<b>PLE</b>	Planning Engineer
<b>PM</b>	Project Manager
<b>PPT</b>	Power Point Presentation
<b>PRDA</b>	Provincial Road Development Authority
<b>PS</b>	Pradeshiya Sabha
<b>RDA</b>	Road Development Authority
<b>RE</b>	Resident Engineer
<b>RF</b>	Resettlement Framework
<b>RRDSE</b>	Rural Road Design & Safety Engineer
<b>RSA</b>	Road Safety Audits
<b>SE</b>	Site Engineer
<b>SGRS</b>	Social Gender Resettlement Specialist
<b>SLRM</b>	Sri Lanka Resident Mission
<b>SO</b>	Safety Officer
<b>SPS</b>	Safeguard Policy Statement
<b>TBA</b>	To Be Announced
<b>TL</b>	Team Leader
<b>TLO</b>	Team Leader Office
<b>TO</b>	Technical Officer
<b>TOR</b>	Terms of Reference

## 1.0 Introduction

### 1.1 Scope of the Report

1. This is the second Annual Environmental Compliance Monitoring Report covering the period of 1<sup>st</sup> of January 2019 to 31<sup>st</sup> of December 2019. While providing a brief introduction to the project, contract packages, and progress of all the packages till 31<sup>st</sup> of December 2019, main focus of the report is to include summaries and details of Compliance with Environment Safeguard Requirements, Monitoring of Environmental Compliance at Field Level, Issues Observed and Status of Compliance, and Programs and Activities to Enhance Environment.

### 1.2 Background of the Project

#### 1.2.1 Second Integrated Road Investment Programme (iRoad 2)

2. The majority of Sri Lanka's population live in rural and peri-urban areas. The poor condition of the transport infrastructure in rural areas has hampered economic development, as well as restricting access to health and education facilities, and limiting access to vital markets for procuring basic requirements as well as selling produce.

3. In order to address these issues, the Government of Sri Lanka (GoSL) is implementing the Integrated Road Investment Programme (iRoad) through the Road Development Authority (RDA) in Southern, Sabaragamuwa, Central, North Central, North Western Provinces and Kalutara district in Western Province. The programme intends to stimulate economic growth and enhance the quality of life and welfare in rural areas by improving transport connectivity between rural communities and socioeconomic centers. Improvements comprise bringing selected roads to an all-weather standard through the rehabilitation and upgrading of existing carriageways and associated drainage works. Based on the progress and achievements of the ongoing iRoad programme, the GoSL initiated the Second iRoad programme covering the provinces of Uva, Eastern, Northern and Western, approximately around 3,650 km of roads shall be improved under iRoad 2 programme.

4. Funding for the programme is provided through the ADB's Multi-Tranche Financing Facility (MFF) which provides loans up to an aggregate amount of USD 800 million. Counterpart funding of USD 106 million is provided by the GoSL for feasibility studies, engineering, tax and duties, and part of the contingency.

### 1.3 iRoad Programme 2 – Uva Province

5. Uva iRoad programme is the first project which has started civil works under iRoad 2 programme. The 976.12 km of rural roads and 71.30 km of national roads covering the districts of Badulla and Monaragala (revised road length) have been packaged in to Eight Contract Packages in Badulla and Seven Contract packages in Monaragala district resulting in a total of fifteen Contract Packages in Uva Province.

6. The fifteen (15) Conventional Road Constructions (CRCs) in Badulla and Monaragala Districts are listed in Table 1 and 2. The local roads have been identified as Provincial Road Development Department (PRDD) or Pradeshiya Sabha (PS)/Municipal Councils Roads and the national roads as RDA Roads.

Table 1 - Contracts Summary Badulla District

Cont. No	Accepted Contract Amount (LKR)	Contractor	Original Road Length	Road Length (km) Actual				
				National	Rural / Provincial			Total
				RDA	PRDD	PS	UC/MC	
BA01	2,055,897,217	NEM Construction	57.88	-	25.96	31.92	-	57.88
BA02	2,262,823,158	Komuthi-HCM JV	79.86	12.04	7.50	63.03	-	82.57
BA03	2,458,963,395	CML-MTD Construction	83.53	-	39.69	31.82	9.55	81.06
BA04	2,118,733,738	CNTIC-RDCE JV	65.46	-	30.98	33.65	-	64.63
BA05	2,504,966,968	CNTIC-RDCE JV	77.99	-	42.39	36.96	-	79.35
BA06	2,345,800,424	CML-MTD Construction	63.00	25.81	33.46	3.29	-	62.56
BA07	2,461,426,008	CML-MTD Construction	68.948	8.06	25.13	36.52	-	69.71
BA08	1,847,725,581	Tissa Builders	60.82	13.80	38.33	7.89	0.81	60.83
Total	18,056,336,489		557.49	59.71	243.44	245.08	10.36	558.59

(Project commencement date was 20<sup>th</sup> July 2018)

Table 2 - Contracts Summary Monagarala District

Cont. No	Accepted Contract Amount	Contractor	Original Road Length	Road Length (km) Actual				
				National	Rural / Provincial			Total
				RDA	PRDD	PS	UC/ MC	
MO01	2,241,235,656	AMSK Construction	63.76	-	50.58	14.52	-	65.10
MO02	1,891,879,867	Tudawe Brothers	63.29	-	33.70	29.83	-	63.53
MO03	2,201,476,830	MAGA Engineering	70.02	-	35.54	33.92	-	69.46
MO04	2,274,491,010	CML-MTD Construction	65.78	11.59	17.27	37.10	-	65.96
MO05	2,504,966,968	Tudawe Brothers	64.15	-	36.32	25.76	-	62.08
MO06	2,713,444,633	Hovael Construction	96.98	-	44.53	53.37	-	97.90
MO07	1,858,087,457	Tudawe Brothers	64.8	-	47.09	17.71	-	64.80
Total	15,685,582,421		488.78	11.59	265.03	212.21	-	488.83

(Project commencement date was 20<sup>th</sup> July 2018)

### 1.3.1 Objectives and Outline of the Project in Uva Province

7. iRoad 2 Programme in Uva Province includes following components:
  - a) Improvement of 976.12 km of rural access roads to all weather standards and 71.30 km of RDA roads, and maintain for a period of three years (PS and PRDD roads) and five years (RDA roads), under fifteen CRC.
  - b) Capacity development: This includes building the capacity of road agencies, including Ministry of Roads and Highways (MoR&H), RDA and provincial and local road agencies, on road asset management, project management, and contract administration.

## 1.4 Project implementation arrangements in Uva Province

8. The Executing Agency (EA) of the Integrated Road Investment Programme is Ministry of Roads and Highways (MoR&H) which is in charge of the overall coordination of project implementation and interagency coordination. Consultant recruitment and procurement of works for CRCs is carried out by the RDA as the designated Implementing Agency.

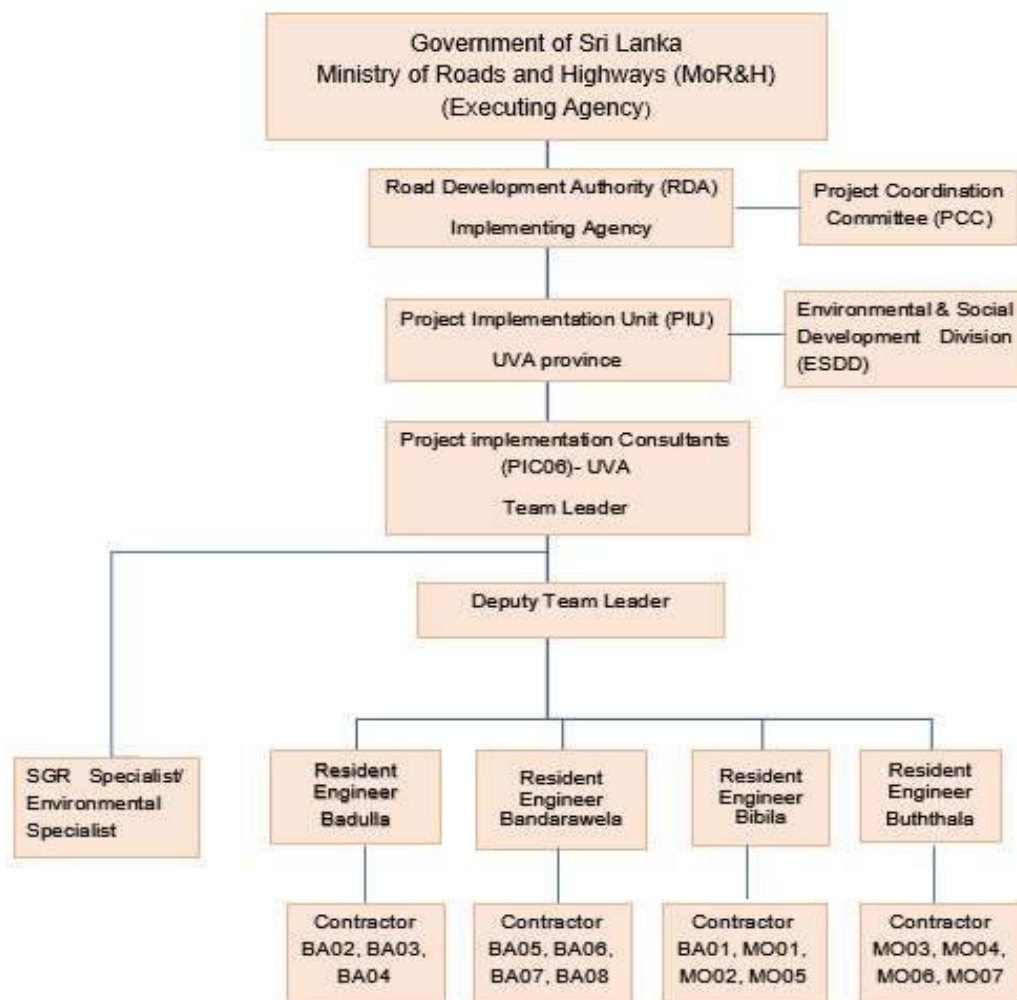


Figure 1 - Project Implementation Arrangements of Uva Province

## 1.5 Scope of the Project - iRoad 2 Uva



Figure 2 - Project Location Map

9. The Project comprises the upgrading and rehabilitation of 71.30 km of National roads (coming under RDA), 508.47 km of Provincial Government Roads administered by the Provincial Roads Development Department (PRDD) and 467.65 km of Local Government Roads consisting of 457.29 km Pradeshiya Sabha and 10.36 km of Urban Council (Badulla MC). The Project roads to be improved are located within two Districts of Badulla and Monaragala in Uva Province.

Table 3- iRoad 2 Uva Programme Scope  
(According to the actual road length)

Type District	National	Rural				Total Length (km)
	RDA	PRDD	Pradeshiya Sabha	Urban Council	Sub-Total	
<b>Badulla</b>	59.71	243.44	245.08	10.36	498.88	558.59
<b>Monaragala</b>	11.59	265.03	212.21	-	477.24	488.83
<b>Total Length (km)</b>	71.30	508.47	457.29	10.36	976.12	1047.42



## 1.6 Appointment of Civil Works Contractors

10. In April, 2018, 15 Conventional Road Construction (CRC) contracts with a total value of LKR 33,741,918,913 were awarded by the RDA for the rehabilitation and upgrading of the rural road network in Uva province. 8 contracts totaling LKR 18,056,336,492 in value were awarded for works in Badulla district and 7 in Monagarala totaling LKR 15,685,582,421. Packages details included in Table 1 and 2.

(Refer Annexure 02 - Cost to completion Report)

11. The scope and location of the proposed contract works are given below. The works contracts all include a design phase and a post-construction maintenance period varying from 3 years for the rural roads to 5 years for the national roads.

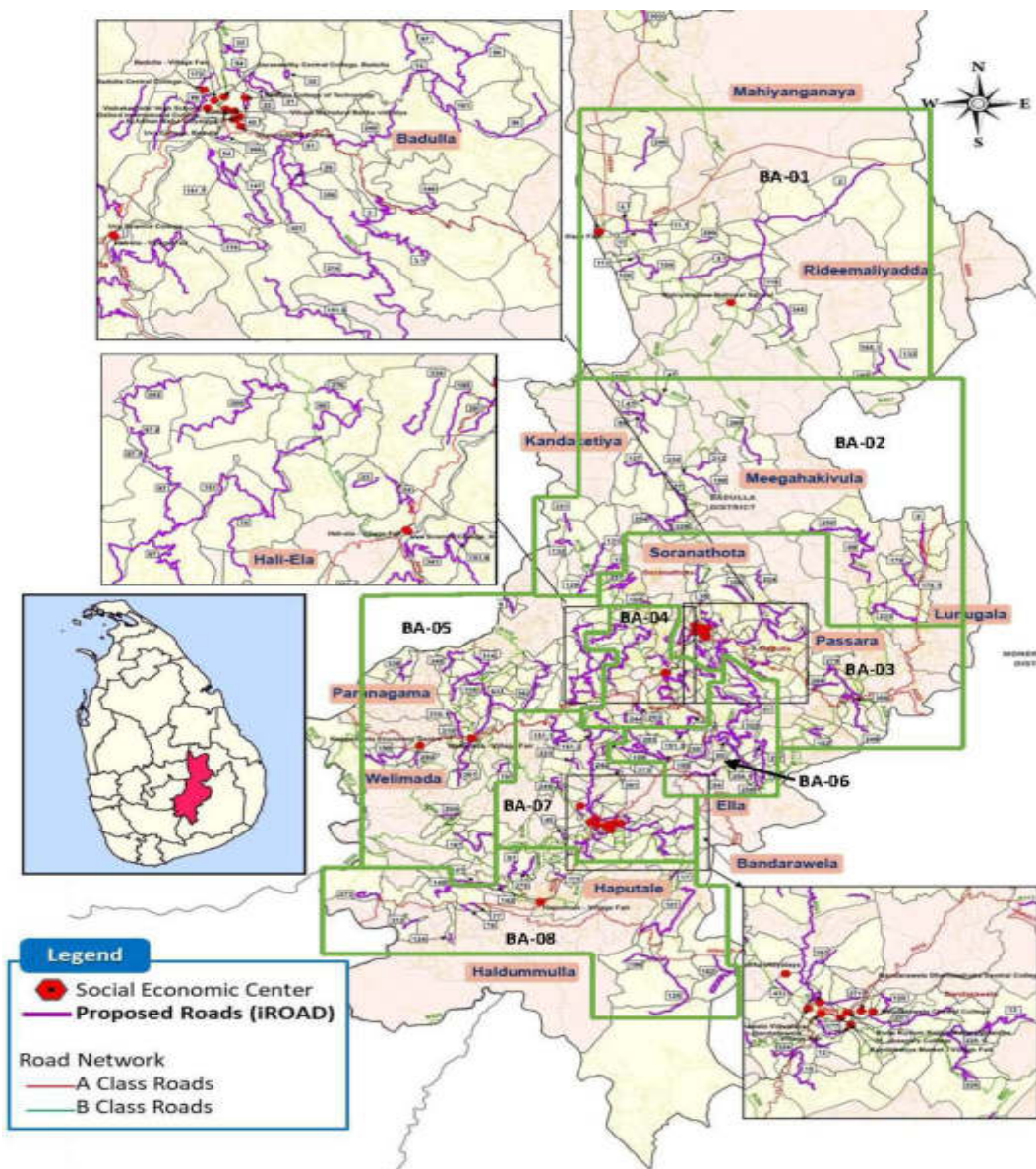


Figure 3 - Location of Civil Works Contracts Badulla District

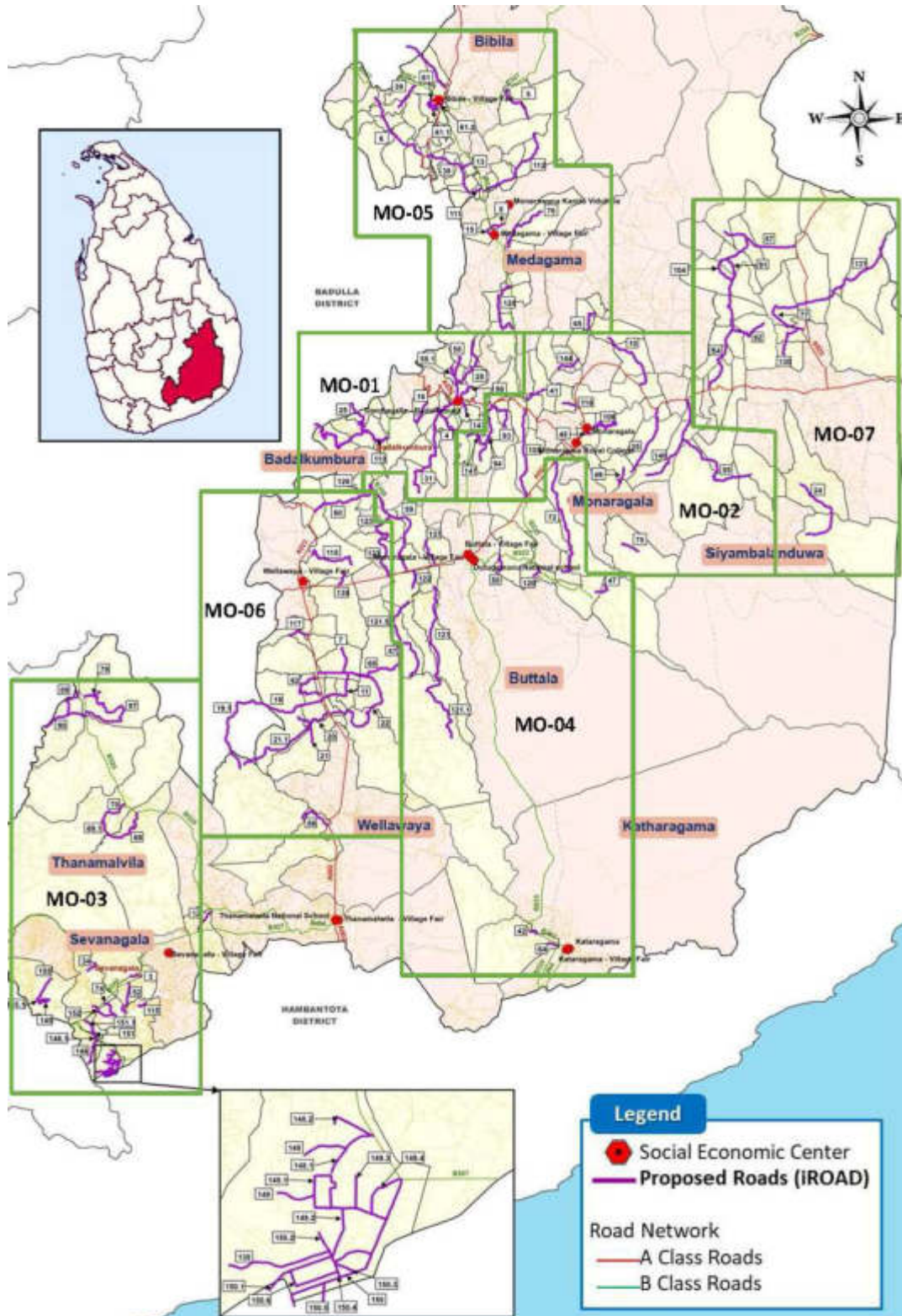


Figure 4 - Location of Civil Works Contracts Monaragala District



## 1.7 Project Implementation Unit (PIU)

12. Project Implementation Unit (PIU) of RDA is established under Project Director Uva Province (PD – Uva) assisted by the key staff of PIU including Senior Engineer, three Project Engineers, one Coordinating Engineer, Accountant, Internal Auditor, and the Environmental and Social Safeguard team (Senior Social Safeguard Officer, Senior Environmental Officer, Social Officer and Environmental Officers).

## 1.8 Project Implementation Consultant (PIC06)

13. In order to assist the supervision and administration of the CRC contracts, the RDA has appointed the Joint Venture of Pyunghwa Engineering Consultants of Korea and Consulting Engineers and Architects of Sri Lanka (the PEC-CEA JV) as the Project Implementation Consultant (PIC06) for the iRoad 2 programme in Uva province on 20 June, 2018.

## 1.9 Roles and Responsibilities of PIU, PIC06, and Contractors

Table 4 - Roles and Responsibilities as per the EARF, 2017 (iRoad 2)

iRoad Participant	General Role and Responsibility
iRoad PIU	<ul style="list-style-type: none"> <li>Project and Safeguard Management</li> <li>Approval of all variations of contracts for consulting services and civil works</li> </ul>
Advisory Consultants Individual Consultants	<ul style="list-style-type: none"> <li>Facilitating PIU in areas requiring special expertise to achieve the programme objective e.g. Contract Management, Procurement, Information Technology, Institutional Strengthening, Capacity Development and Road Safety.</li> </ul>
SAPE Team	<ul style="list-style-type: none"> <li>Feasibility study, safeguard documents, and level-2 designs</li> <li>Community consultation along project roads</li> </ul>
PIC06 (CRC)	<ul style="list-style-type: none"> <li>Reviewing and confirming the design and scope of works when the contractors apply the level-2 designs to the roads under Conventional Road Contract packages</li> <li>Construction supervision of Conventional Road Contract packages</li> <li>Supervision of post-construction maintenance work in Conventional Road Contract packages</li> <li>Monitoring safeguard activities</li> <li>Providing on-the-job training to the PIU, EA, IA, and provincial and local road agencies in project management and contract administration.</li> </ul>
Contractors	<ul style="list-style-type: none"> <li>Detailed design based on the level-2 design for Conventional Road Contract packages, or the conceptual design for the road management contract packages</li> <li>Deliver the physical works as required in the Conventional Road Contract, or the level of services as required in the road management contract.</li> <li>For the road management contract packages, the work requires various asset management tasks.</li> <li>Implementing safeguard requirements in the contract.</li> </ul>

## 1.10 Summary of Submissions & Approvals and Environmental Activities

14. Table 5 represents a summary of submissions, approval status and Environmental activities.

Table 5 - Summary of Submissions, Approval & Environmental & Social Activities as at 31<sup>st</sup> December 2019

No	Description	BA01	BA02	BA03	BA04	BA05	BA06	BA07	BA08	MO01	MO02	MO03	MO04	MO05	MO06	MO07
1	Programme & S Curves															
2	Project Quality plan															
3	Initial SSEMP															
4	Safety, Health & Traffic Plan															
5	Roadwise SSEMAPs															
6	Method of Statements															
7	GRC Meetings	DS Level														
		GND Level														
8	Complain Register															
9	Complain Boxes															
10	Crack Survey															
11	Gender Action Plan Data File															
12	Transact Walk Records															
13	Booklet Information															
14	EMC Reports															
15	Disposal Yards/Material Yard															
16	Safety Training Data File															

	Submitted & Approved/Completed		Submitted & Under Review		Resubmission
	Not Submitted/Not Available		Partially Completed (Contractors are submitting according to the work programmes)		

## 2.0 Civil Works Progress

15. Progress to the end of December, 2019, of the 15 civil works contracts is presented below.

### 2.1 Status of Civil Work Progress in Uva province

16. During this reporting period the civil works performance of several contracts have not been to the expected standards. The figures and percentages of the planned and actual progress achieved up to 31<sup>st</sup> December 2019 by each contractor are presented in Table 6 below.

Table 6 - Overall Physical Progress in Uva Province (Up to 31st December 2019)

Package No.	Contractor	Accepted Contract Amount (LKR)	No. of Roads	Actual Total Road Length/ (km)	No. of Roads Civil Works in Progress	Physical Progress Cumulative up to 31st of December 2019 (%)			Asphalt Completed (Km)
						Target (Original)	Target (Revised)	Actual	
BA01	NEM	2,055,897,217.00	14	57.88	12	82.41	68.39	61.02	29.06
BA02	Komuthi-HCM JV	2,262,823,158.00	20	79.86	19	63.95	37.36	31.88	00.08
BA03	CML-MTD	2,458,963,395.00	36	83.53	08	71.45	41.26	15.08	02.03
BA04	CNTIC-RDCE JV	2,118,733,738.00	20	65.46	16	77.26	42.09	29.26	00.00
BA05	CNTIC-RDCE JV	2,504,966,968.00	17	77.99	11	66.00	41.36	37.56	05.02
BA06	CML-MTD	2,345,800,424.00	11	63.00	07	77.28	39.22	30.14	06.60
BA07	CML-MTD	2,461,426,008.00	17	68.95	06	74.30	38.09	22.38	02.34
BA08	Tissa-PND JV	1,847,725,581.00	18	60.82	10	73.13	39.17	30.03	08.75
MO01	AMSK-CGGC JV	2,241,235,656.00	10	63.76	07	80.04	64.91	43.00	15.82
MO02	Tudawe	1,891,879,867.00	14	63.29	14	81.90	67.38	54.19	21.99
MO03	MAGA	2,201,476,830.00	21	70.02	20	67.71	-	58.10	20.00
MO04	CML-MTD	2,274,491,010.00	12	65.78	07	73.35	29.64	23.86	05.00
MO05	Tudawe	2,504,966,968.00	14	64.15	12	77.78	71.37	53.61	25.39
MO06	Hovael	2,713,444,633.00	16	96.98	12	86.73	55.35	49.06	46.65
MO07	Tudawe	1,858,087,457.00	09	64.80	09	82.19	61.44	52.62	21.36
<b>Total</b>		<b>33,741,918,910.00</b>	<b>249</b>	<b>1046.27</b>	<b>170</b>	<b>N/R</b>	<b>N/R</b>	<b>N/R</b>	<b>210.10</b>

17. During the period from the commencement of the project few Contractors are not performed well due to lack of cash flow, the Contractor CML-MTD faced considerable difficulties to achieve the targets due to cash flow issue. PIC06 has issued Contractual notices to alarming the Contractor and Employer regarding the delay progress. Specially Contractors engage in Badulla District packages are facing many difficulties. Hilly terrain of the Badulla area and Badalkumbura area (MO01), faced many difficulties during the last five month of year 2019 due to heavy rains, this weather condition leads the project progress delay significantly. Monaragala District packages also affected heavy rains in the end of the year 2019.

### 3.0 Compliance with Environment Safeguard Requirements

#### 3.1 Environmental Safeguard Compliances

18. Environmental safeguard is one of the major compulsory components of the iRoad 2 (Uva) programme and the EARF has been prepared to guide selection, screening, categorization, impact assessments, project implementation and monitoring of environment safeguards according to legal provisions of the GoSL as well as the ADB Safeguard Policy Statement (SPS 2009) for succeeding tranches and their project roads under the investment programme. PIU, PIC06 and the Contractors are compiled the requirements stipulated in the EARF and FAM, the Table 7 and 8 illustrate the compliance.

Table 7 - Compliance with Environmental Safeguard Requirement as per EARF

Item/Section/ Schedule	Description	Status of Compliance
<b>A. Legal Framework of GoSL on Environment Safeguards</b>	24. The scope of iRoad 2 includes rehabilitation and upgrading of existing PS, PRDA and RDA roads with no widening of the existing Right of Way. According to the Gazette Extra-ordinary No. 772/22 of 24th June 1993 and subsequent amendments, all rehabilitation works for existing highways and roads do not fall within the category of Prescribed Projects. Hence, it is likely that the project roads under the investment programme will not be required to prepare an IEE or EIA for securing an environmental clearance from the CEA. However, RDA shall submit a BIQ for each province considered under iRoad 2, including information on the scope of project with the list of roads to be rehabilitated and improved. Based on this information, RDA shall obtain a clearance from CEA (as done during iRoad) with any conditions or guidelines	RDA has obtained the CEA concurrence. Refer Annexure 3 – CEA concurrence for iRoad UVA programme  According to the guidelines given by the CEA PIU obtain necessary approval and permissions from relevant agencies (DoFC, DS, etc.) Refer Annexure 4 - PD's request letter to DoFC and Archeology Department.
	27. Specific approvals/clearances, permits and licenses that need to be obtained for the proposed programme are out lined under Table 3. These approvals/clearances, permits and licenses are based on the laws and regulations under the NEA, CCA, FaFPA and other Acts and regulations listed in table 2.	All Contractor were advised to obtain necessary license & permits. Contractor's license and permits are reviewed by PIC06 regularly and Contractors include details in Monthly Environmental and Social Progress Report. (Refer Table 28 - 42)
<b>III. Anticipated environment impacts</b>	41. Most of the adverse impacts will be occurring during the construction stage of the investment program. Pollution of local environment in the form of air pollution, water pollution, generation of noise and vibration, soil erosion, slope failures and landslides, generation of solid waste, loss of vegetation and aesthetic beauty, damages to irrigation and drainage canals are some of the key issues leading to adverse environment impacts. Worker force safety, safety of public and vehicles;	All contracts prepared & submitted SSEMAPs and Health Safety & Traffic Management plans and approved by PIC06.  EMCs are being submitted to the PIC06 for review and approvals.

	conflicts between residents of an area and worker force are some of the social issues that would arise during the construction stage.	Close supervision and periodic awareness are carried out by PIU & PIC06.
	44. The concept of “Context Sensitive Design” or CSD shall be used from design stage to identify specific design requirement with respect to the physical, ecological and social environment through which a candidate road is located. The concept of CSD is a very useful tool in developing designs that are sustainable in nature and acceptable to public. CSD allows roadway design decisions to better balance economic, social and environmental objectives.	Refer Annexure 5 for details CSD applications.

### 3.2 Environment safeguards with compliance respect to Facility Administration Manual (FAM)

Table 8 - Compliance with Environmental Safeguard Requirement in FAM

Item/ Section/ Schedule	Description	Status of Compliance
<b>FAM ToR 24 (i)</b>	<b>Categorization.</b> Ensure that the Project is complying with requirements stipulated in Environmental Assessment Review Framework (EARF), Resettlement Framework (RF), and Indigenous Peoples Planning Framework (IPPF) developed for the project based on ADB’s Safeguard Policy Statement (2009) and conditions / guidelines stipulated by Central Environmental Authority.	Contractors are advised to prepare and submit SSEMAP according to the guidelines given in the EARF  EMCs are being preparing for all roads separately at the stages of Pre-Constructions, 25%, 50%, 75%, 100% of the physical progress and annually in maintenance period (Refer Table 13-27).
<b>FAM ToR 24 (vii)</b>	Assist IA in establishing a Grievance Redress Mechanism and in its proper functioning and management	100% of GRCs established at DS level and 75% of GND level GRCs have established up to 31 <sup>st</sup> December 2019.  122 of GND level GRCs to be established. (Refer Table No. 47)
<b>FAM ToR 24 (ix)</b>	Carryout the following duties related environmental safeguard:  (a) ensure that all the environmental mitigation measures (as outlined in Initial Environmental Examination Report / IEER) required to be implemented are incorporated in the Contract documents;  (b) ensure that the Contractor prepares Site Specific Environmental Management Action Plans (SSEMAP) and approving the SSEMAP before commencement of construction work;	(a) Environmental mitigations were considered and adopt to the SSEMAPs.  (b) Initial SSEMAP approved by the PIC06 and contractors are being updating the SSEMAPs as addendum to the initial SSEMAPs and obtain approval from PIC06 before commence the physical activities.

Item/ Section/ Schedule	Description	Status of Compliance
	<p>(c) supervise and monitor the implementation of SSEMAP; and</p> <p>(d) in the event of occurrence of any unexpected environmental impacts, coordinate with the Contractor and Employer to ensure that necessary mitigation measures are implemented;</p> <p>(e) provide technical advice to the Contractors;</p> <p>(f) prepare periodic monitoring reports monthly (as part of Monthly Progress report) and annually and submit to IA; and</p> <p>(g) facilitate grievances redress in the case of environmental related issues.</p>	<p>(c) PIC06 supervisions are carried out according to the accepted SSEMAPs.</p> <p>(d) Joint inspections are carried out with the PIU, PIC06 &amp; the Contractor to ensure all mitigatory measures are implemented in the ground.</p> <p>(e) All Contractors were advised to submit Monthly Environmental and Social Progress Reports separately. Monthly Report review and accept by PIC06 and Contractors submit four copies of accepted reports. Annual Environmental Compliance Report submitted for the period of June – December 2018 and report published by the ADB. Second report from January – December 2019 submit before the deadline given by the ADB</p> <p>(f) All environmental related grievances also included to the Contractors register and Contractors are evaluating the issue and resolve the matters. If Contractor could not be able to resolve the matter, the issue will escalate to the PIC06, PIU or GRCs. PIC06 ESOs conduct regular inspections and monitor environmental related issues and report to the ES for solutions. Based on the field level observations ES conduct the inspections and resolve the grievances/ environmental issues.</p>



## 4.0 Monitoring of Environmental Compliance at Field Level

### 4.1 PIU and PIC06 Actions to Comply Environmental Safeguards

19. Project Director of Uva Province iRoad 2 (PD – Uva) leads the PIU environmental and social safeguard team includes Senior Social Safeguard Officer (SSSO), Social Safeguard Officer (SSO) (resigned), and Senior Environmental Officer (SEO). PIU team monitors environmental safeguards in the field level and management of the contract. PD – Uva participated in site inspections to ensure that PIC06 and contractors are implementing EARF and contractual requirements in the contract document. On behalf of the project, PIU environmental and social safeguard team communicates relevant issues and gets necessary clearances from the external agencies such as Department of Wildlife Conservation, Department of Forest Conservation, Central Environmental Authority, Timber Cooperation, Divisional Secretariats and other government agencies to confirm smooth operation of the project. Project Director UVA highlighted not to violate ADB safeguards under any circumstance and any violation may result in closure of the entire iRoad programme, in every monthly progress review meeting. (Refer Annexure 6 - Minutes of Progress Review Meeting)

20. Team Leader (TL) of PIC06 leads the PIC06 team with the support of Environmental Specialist and Social Gender Resettlement (SGR) Specialist to assure that the key and Environmental and Social Safeguard Officers (provide under Contractors BOQ, 8 officers appointed) of the project comply environmental safeguards. And, the PIC06 team assures that contractors are complying the required safeguards as well. The TL has strongly emphasized on implementing environmental safeguards on site and instruct all the contractors to adhere site work to the guidelines given in EARF and EMP of the contract document. The Team Leader consider site safety aspects in most important subject in the each and every Monthly Progress Review Meetings for all contract packages and Environmental Safeguard monitoring consider in separately in the meetings.

21. PIU and PIC06 decided to obtain NBRO report for specific roads which identified potential risk of landslides. Koslanda to Punagala road (UBA101), Namunukula- Miyanakadura Road (UMO110), Akiriya to Madolsima Road (UBA069) and Metigahathenna-Akiriya-Megolla Road (UBA250) roads referred to the NBRO for their recommendations on road rehabilitation. Project director UVA sent the request letters to NBRO for site inspection and report. PD – Uva and TL – PIC06 strongly advised to the designers to adhere the all recommendation on NBRO reports and EARF requirements to the designs. (Refer Annexure 7 - Project Director's request letter for NBRO report and Annexure 8 - NBRO report for Namunukula Miyanakadura road- UMO110)

## 4.2 Staffing of Environment and Safety Officers

22. Tables 9, 10, 11 represent the recruited environment and Social officers of each contractor packages.

Table 9 - Details of the staffing and training conducted for the PIU and PIC06.

Institution	Full Name	Designation	Mobilize Date	#Awareness Programs Participated (workshops, meetings, special reg. environment safeguards)
RDA-PD Office	Mr. T. Jasdeepan	Senior Social Safeguard Officer	30.07.2018	5
	Ms. W. D. R. D. D. D. K. Wasala	Social Safeguard Officer	25.10.2018 (resigned)	1
	Mr. P. G. E. N. Wijayarathna	Senior Environmental Officer	28.08.2018	5
PIC06-TL office	Mr. Malaka Paranamanna	Environmental Specialist	24.08.2018	5
	Mr. D. A. D. Ranjith	Social/Gender/Resettlement Specialist	18.09.2018	3
	Ms. S.M. Gnanasingha	Environmental and Social Officer	10.09.2019	0
PIC06 RE 1 Office	Mr. Sunil Shantha	Environmental and Social Officer	02.01.2019	2
PIC06 RE 2 Office	Mr. J. R. V. Roshan	Environmental and Social Officer	02.11.2018	2
	Mr. Wasantha Dissanayake	Environmental and Social Officer	06.08.2018	5
PIC06-RE 3 Office	Mr. Damith Wickramasekara	Environmental and Social Officer	01.08.2019	0
	Mr. Chinthaka Wijethunga	Environmental and Social Officer	10.09.2018	4
PIC06- RE 4 Office	Mr. Sanjeeva Sirisena	Environmental and Social Officer	24.08.2018	4
	Mr. Chandima Ranasinghe	Environmental and Social Officer	01.02.2019	2

Table 10 - Details of the staffing and training conducted for the contractors – Badulla Packages

Contract Package	Officer's Name	Designation	Mobilize Date	# Awareness Programs Participated (workshops and special meetings reg. environment safeguards)
BA01	Mr. S. D. N. Madhushanka	ESSO*	01.09.2018	4
	TBA	ESSO	-	-
BA02	Ms. Nelum Madhushani	ESSO	07.09.2019	0
	Mr. Sucharitha Lakmal	ESSO	20.12.2019	-
BA03	Mr. Navodya Wijesekara	ESSO	23.10.2019	0
	TBA	ESSO	-	-
BA04	Mr. Dushmantha Nuwan	ESSO	06.09.2019	4
	Ms. W. A. D. P. Wijerathna	ESSO	08.08.2018	4
BA05	Mr. Lasantha Wijekoon	ESSO	05/11/2019	0
	Ms. H. G. T. Jayamini	ESSO	24.07.2018(resigned)	4
BA06	Ms. N. A. G. N. Dias	ESSO	13.08.2018	4
	Mr. E.M.T. Kelum	ESSO	09.12.2019	0
BA07	Ms. Achira Gunarathna	ESSO	07.08.2018(resigned)	4
	Mr. Asela Indika	ESSO	23.10.2018	0
BA08	Mr. B. Samantha	ESSO	01.06.2018	4
	TBA	ESSO	-	-

\*Environmental and Social Safeguard Officer - ESSO

Table 11 - Details of the staffing and training conducted for the contractors – Monaragala Packages.

Contract Package	Officer's Name	Designation	Mobilize Date	# Awareness Programs Participated (workshops and special meetings reg. environment safeguards)
MO01	Mr. Samith Indika Maddumage	ESSO*	04.06.2018(resigned)	4
	TBA	ESSO	-	-
MO02	Mr. Mangala Perera	ESSO	01.07.2018	4
	Mr. Vijitha Hapukotuwe	ESSO	21.09.2019	0
MO03	Mr. Nandana Jayasinghe	ESSO	30.09.2019	0
	Ms. Maheshika Edirisinghe	ESSO	27.09.2018	3
MO04	Ms. M.H. Inusha Dilmani	ESSO	27.08.2018	3
	TBA	ESSO	-	-
MO05	Mr. Kelum Samaradiwakara	ESSO	15.10.2018	2
	Mr. W. Napearachchi	ESSO	09.08.2019	2
MO06	Mr. Pubudu Tharanga	ESSO	02.07.2018	4
	Ms. Udesika Sripali	ESSO	05.12.2019	0
MO07	Mr. Prasanna Gunasekara	ESSO	06.08.2018	4
	Ms. Malsha Sulakshani	ESSO	06.09.2018(resigned)	4

\*Environmental and Social Safeguard Officer - ESSO

#### 4.3 Review and Approval of SSEMAP

23. General format for Site Specific Environmental Management Action Plan (SSEMAP) was distributed among contactors according to the EMAP included in the contract document. After receiving the drafted SSEMAP reports, comments and reviews were given by PIC06 Environmental Specialist (ES). Initial SSEMAP reports were approved by PIC06/ ES for construction activities and SSEMAP will be updated road/cluster wise before commencing the physical activities (Table 13 - 27).

#### 4.4 Preparing of Environmental Monitoring Checklist (EMC)

24. EMCs are being prepared for each road in pre-construction stage for all contract packages. Construction stage EMCs will be prepared according to the physical progress in four segments, which will be for 25%, 50%, 75% and 100% for road length exceeds 3km and roads which are less than 3km EMCs will be prepared for 50% and 100% of the physical progress. EMCs for mentioned stages are updated in following tables (Table 13 - 27).

25. EMCs for maintenance period will be prepared for each road in annual basis.

26. SSEMAPs and EMCs are being prepared by the Contractors according to the master programme based on the clusters and priority roads.

#### 4.5 Pre-crack survey (Conducted by the Contractor)

27. At the commencement of the project Contractors were advised by PIU and PIC06 to conduct pre-crack survey for all roads before commence the physical work at each road. Contractors are conducting pre- crack survey according to the Contractor's work programme, priority roads were started road wise or cluster wise. PIC06 instructed to the Contractors, crack survey reports submit as electronic copies to PD office, TL office, RE office and CE's office to avoid the paper waste. Contractors pre-crack survey report submission updated in the Table 13 - 27.

#### 4.6 Site safety and accidents

28. Site safety is the main concern of the PIC06 and PIU, Team Leader PIC06 review all accident and incident record book in every monthly progress review meeting as first topic in the meeting. PD and TL emphasize to the Contractors record all incidents in the accident record book and prevention actions were recorded in the accident record book.

29. Team Leader advised all Construction engineers to participate the Contractors' Tool box Meetings and aware the staff how to record the accidents in site level. During the construction stage one fatal accident occurred in BA01 package total 316 accidents were reported from the commencement of the project up to 31<sup>st</sup> December 2019. Accident summary included in Table No.12.

Table 12 - Accident summary

SN	Package	June 2018 - December 2019			
		Near Misses	First aid cases	Lost time injuries	Fatal Accidents
1	BA01	21	6	2	1
2	BA02	3	1	4	0
3	BA03	3	6	1	0
4	BA04	0	2	5	0
5	BA05	8	9	1	0
6	BA06	2	13	2	0
7	BA07	6	4	1	0
8	BA08	6	4	0	0
9	MO01	36	4	0	0
10	MO02	8	16	2	0
11	MO03	24	14	2	0
12	MO04	3	3	2	0
13	MO05	32	19	0	0
14	MO06	17	5	0	0
15	MO07	10	4	4	0
Total		179	110	26	1

30. The following tables from Table 13 to 27, figures in progress column are indicate without design progress. (Design progress weightage is 10%)

Table 13 - Badulla Package 1 (BA01) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC - 25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UBA004	45 mile post-Elewela Road	PRDD	1.95	13%	1	1	1	NR		NR	
2	UBA011	Alewela-Damarawa-Dehigolla Sec.i & ii	PS	4.06	73%	1	1	1	1	1		
3	UBA104	Mapakadawewa 20th mile post Junction to 50 Acres Road	PS	3.07	98%	1	1	1	1	1	1	
4	UBA105	Mapakadawewa 20th Mile post Jc. to Paharagammuna Road	PRDD	1.82	98%	1	1	1	NR	1	NR	
5	UBA113	Paharagammuna Road (Bodiya) to Senanigama School Road	PS	0.87	98%	1	1	1	NR	1	NR	
6	UBA248	Meegahahena-Watawana Road	PS	5.33	37%	1	1	1	1			
7	UBA303	Roberiyawa Ulhitiya Village entrance to Ulpitiya Temple Road	PS	1.47	94%	1	1	1	NR	1	NR	
8	UBA002	2F South Keselpotha to Ikiraya Goda Road	PS	12.68	46%	1	1	1	1			
9	UBA165	Hewanwatta Kumbukgolla to Polwagawa Sec.i & ii	PS	2.79		1						
10	UBA005	50th Mile Post-Keselpotha-Mapakada Road	PRDD	10.29	87%	1	1	1	1	1	1	
11	UBA119	Thissapura Keselpotha Junction to Aadaulpatha Road	PRDD	6.02	86%	1	1	1	1	1	1	
12	UBA299	Rideemaliyadda Gamunupura Remnple Road	PS	1.27	06%	1		1	NR		NR	
13	UBA345	Uraniya-Mahapitiya-Nagadeepa Road	PS	4.13	48%	1	1	1	1			
<b>Total</b>				<b>58.33</b>		13	11	12	7	7	3	0

Table 14 - Badulla Package 2 (BA02) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC - 25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UBA127	From Wewathenna to Thaldena (Old Kandy Road)	PS	4.76	5%	1	1	1				
2	UBA129	Galauda-Ampitiya Road	PS	3.96	21%			1				
3	UBA130	Galauda-Bokkanoruwa Road	PS	3.52	11%			1				
4	UBA131	Galauda-Labugasthalawa Road	PS	3.62	14%		1	1				
5	UBA132	Galauda-Wasanagama Road	PS	2.53	32%	1	1	1	NR		NR	
6	UBA181	Kadapoththawa Rural Entrance Road	PS	2.03	21%			1	NR		NR	
7	UBA047	Bubula , Mahathenna, Dadayamthalawa Road	PS	3.05	26%	1	1	1	NR		NR	
8	UBA095	Kandeketiya Badulu Oya Junction to Thennagammanaya Road	PS	4.24	35%	1	1	1	1			
9	UBA331	Thunnewa Road	PS	2.13	29%	1	1	1	NR		NR	
10	UBA069	Akiriya to Madolsima Road	RDA	11.78	13%		1	1				
11	UBA008	Adawaththa Lunugala Division	PS	4.76	19%							
12	UBA233	Mahadowa Estate to Lunugala Road	PS	7.47	18%							
13	UBA250	Metigahathenna-Akiriya-Megolla Road	PRDD	7.34	24%		1	1				
14	UBA199	Keselwatta Lunugala Road	PS	1.89	33%	1	1	1	NR		NR	
15	UBA212	Komarika Galkada Road	PS	1.74	77%	1	1	1	NR		NR	
16	UBA238	Makulgolla Welan Landa Road	PS	1.86	58%	1	1	1	NR		NR	
17	UBA295	Polgaha Arawa Main Road	PS	4.42	53%	1	1	1	1			
18	UBA327	Thalde-Galgelanda Road	PS	2.63	21%	1	1	1	NR		NR	
19	UBA329	Thaldena-Bathalawatta Nagolla Road	PS	3.83	30%	1	1	1	1			
<b>Total</b>				<b>81.62</b>		11	14	17	3	0	0	0



Table 15 - Badulla Package 3 (BA03) SSEMAP and EMC Summary

SN	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC 25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UBA074	Atabagahakadura to Kendagolla Dabagasgoda Bridge	PRDD		2.89	15%	1	1		NR		NR	
2	UBA240	Malangamuwa Road	PRDD		3.34	53%	1	1	1				
3	UBA301	Rilpola- Kalugalpitiya Road	PRDD		2.97	38%	1	1	1	NR		NR	
4	UBA021	Andeniya Kurugahapathana Main Road	PS		1.38		1			NR		NR	
5	UBA022	Andeniya Main Road (Pansala Mawatha)	PS	PRDD	0.95		1			NR		NR	
6	UBA026	Approach road to Badulla Weeriyapura Bishop's road	PS		0.56	80%		1	1	NR		NR	
7	UBA040	Badulupitiya Road	UC		0.72	26%	1	1	1	NR		NR	
8	UBA094	Kailagoda Wadu School to Kshethrarama Temple	PS		0.63		1			NR		NR	
0	UBA096	Kendagolla Cemetry Junction to Muthumala Guru Bittiya	PS	PRDD	3.24		1						
10	UBA098	Kendagolla Yodun Ulpatha Bridge to Gurubiththiya Junction	PRDD		2.34	27%	1	1	1	NR		NR	
11	UBA099	Keppetipola Road to Wimaladarma Road	PS		0.43		1			NR		NR	
12	UBA147	Goradiyawaka - Ampitiya-Kandearawa Road	PS		2.36		1			NR		NR	
13	UBA172	Ihala Aluth Ela Road	UC		0.71		1			NR		NR	
14	UBA195	Katupelellagama Main Road	PS		2.03		1			NR		NR	
15	UBA346	Vineethagama Wewessegama via 4th mile post road	PS		1.43		1			NR		NR	
16	UBA356	Weeryapura Main Road Sec.i	PS		1.59	39%	1	1	1	NR		NR	
<b>Total</b>					<b>84.11</b>		15	7	6	0	0	0	0

Table 16 - Badulla Package 4 (BA04) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC -25%	EMC -50%	EMC -75%	EMC -100%
1	UBA075	Attampitiya Estate 1 Div. Kovil to Paratugolla A.T.P. Div.	PS		1.59	45%	1	1	1	NR		NR	
2	UBA090	Hathakama Waralkatiya to Serandip Waththa	PS	PRDD	3.07	21%	1	1	1				
3	UBA151.iii	Hali Ela Outer Circular Road Sec.iii	PS	PRDD	2.72	04%	1	1	1	NR		NR	
4	UBA151.iv	Hali Ela Outer Circular Road Sec.iv	PS		7.76			1	1				
5	UBA151.ix	Hali Ela Outer Circular Road Sec.ix	PS	PRDD	5.83			1	1				
6	UBA151.v	Hali Ela Outer Circular Road Sec.v	PS	PRDD	4.85	17%	1	1	1				
7	UBA151.vii	Hali Ela Outer Circular Road Sec.vii	PS	PRDD	4.17	17%	1	1	1				
8	UBA019	Ampitiya Kandagolla Road	PS		3.03	03%	1	1	1				
9	UBA023	Anthuduawela Queenstown Road to Mahakubura	PS	PRDD	0.95	16%	1	1	1	NR		NR	
10	UBA024	Anthuduawela-Amudaweli Road	PS		2.10	0.2%		1	1	NR		NR	
11	UBA054	Dematawalhinna via Dalukhinna Road	PS		4.08	14%	1	1	1				
12	UBA200	Ketawela-Panakanniya-Medagedara Road	PS	PRDD	6.16			1	1				
13	UBA214	Kottagoda 6 Division-Springwelliwatta-Kottagoda Kadana Road	PRDD	PS	1.92	15%	1	1	1	NR		NR	
14	UBA219	Kudumawela-Heenanarangolla	PS		2.72			1	1	NR		NR	
15	UBA244	Malpola to Ambewela bypass Road	PS		1.00	58 %	1	1	1	NR	1	NR	
16	UBA253	Morethota St. JamesKovil Junction to Abewela School Road	PRDD		2.02		1			NR		NR	
17	UBA276	Oththekade-Katawala Road	PS	PRDD	2.08	07%	1	1	1	NR		NR	
18	UBA316	Silpolagama Road to Unagolla Road	PS	PRDD	2.29	14%	1	1	1	NR		NR	
19	UBA334	Udakohovila Sri Kali- amman Kovil Road	PS		2.94			1	1	NR		NR	
20	UBA341	Unagolla to Hali-Ela Road	PS	PRDD	3.14	28%	1	1	1	1			
<b>Total</b>					<b>64.42</b>		14	19	19	1	1	0	0

Table 17 - Badulla Package 5 (BA05) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC - 25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UBA063	Downside to N.G. Division	PS	2.69	04%	1	1	1	NR		NR	
2	UBA078	Bandarawela Road to Amunumulla Road	PS	1.51		1			NR		NR	
3	UBA116	Sapugollagama to nahakadiya via Telembuwela Road	PS	2.20	16%	1	1	1	NR		NR	
4	UBA141	Glanore waththa Idalgashinna Road	PS	1.91		1			NR		NR	
5	UBA167	Hinnarangolla-Gammedda-Galadanda Road	PRDD	5.72		1	1	1				
6	UBA198	Keppetipola-Hewankumbura-Ambagasdowa Road	PRDD	6.72	21%	1	1	1				
7	UBA204	Kirinda Road	PS	1.62	30%	1	1	1	NR		NR	
8	UBA290	Pelwinna Road (From Pelwinna Junction)	PS	1.38	91%	1	1	1	NR	1	NR	
9	UBA310	Sapukade junction to Ambagasdowagama Road Sec.i & ii	PS	3.37	17%	1	1	1				
10	UBA314	Senanayaka Jc. to Kirawanagama, Galketiya Mankada Road	PRDD	7.76	21%	1	1	1				
11	UBA336	Uduhawara-Koradekumbura Road	PS	2.92	13%	1	1	1	NR		NR	
12	UBA348	Waldimar to Alugala Junction	PS	4.34		1						
13	UBA361	Welimada-Kerandimulla Road	PRDD	7.16	20%	1	1	1				
14	UBA362	Welimada-Yahalagaha Arawa Imbulgashinna Rahupola Road	PRDD	14.53	27%	1	1	1				
<b>Total</b>				<b>78.80</b>		14	11	11	0	1	0	0

Table 18 - Badulla Package 6 (BA06) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC -25%	EMC -50%	EMC -75%	EMC -100%
1	UBA081	Demodara-Baddegama-Springwelly -Rockhill to Badulla	RDA		21.30	19%	1	1	1				
2	UBA084	Ella to 3rd Mile post (Ella Passara Road via Balleketuwa)	RDA		4.51	0.4%	1	1	1				
3	UBA088	HalpeJunction to Maduragama via Demodara Bogaha Jc.	PRDD		6.70	60%	1	1	1	1	1		
4	UBA293	Piyarapandowa Neluwa Road	PRDD	PS	5.15		1						
5	UBA055	Demodara, Gawarawela,Beddewela via Balla ketuwa Road	PRDD		2.51	60%	1	1	1	NR	1	NR	
6	UBA109	Millagama junction to Piyarapandowa via Welsiwattha Road	PRDD		4.99	01%	1	1	1				
7	UBA137	Gawarakele-Nahawila-Hindagala Road	PRDD		6.55		1		1				
8	UBA155	Halpe Kandekubura Road	PS		1.29		1			NR		NR	
9	UBA258	Nawelagama Baddearawa Road Sec.i & ii	PRDD		7.06	06%	1	1	1				
10	UBA297	Pupula Temple Road	PS		1.85		1		1	NR		NR	
11	UBA322	Springvally to Gawarakale Nahawilla Road	PRDD	PS	3.74		1						
<b>Total</b>					<b>65.65</b>		11	6	8	1	2	0	0

Table 19 - Badulla Package 7 (BA07) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC -25%	EMC - 50%	EMC -75%	EMC - 100%
1	UBA242	Maligatenna to Bandarawela main Road	RDA		8.06	24%	1	1	1				
2	UBA245	Mathatilla-Daluk Ella Road	PS		2.47		1	1	1	NR		NR	
3	UBA012	Allethota to South Kebillawala Piriwena Road	PRDD		1.28		1		1	NR		NR	
4	UBA013	Allimale junction to Ambadandegama road	PRDD		6.77			1					
5	UBA120	From Udaperuwa to Railway Line Road	PS		1.36		1	1		NR		NR	
6	UBA177	Jalasha Kanda Galwala handiya Road	PRDD		1.71				1	NR		NR	
7	UBA201	Kinigama junction to Mahaulpotha-Kandearawa-Heeloya Road	PRDD		3.90		1	1					
8	UBA228	Liyangolla Hospital Road Sec.i & ii	PS		4.70	6.2%		1	1				
9	UBA271	North Kebillewela-Bindunuwewa Road	PRDD		2.82	7%		1	1	NR		NR	
10	UBA016	Ambegoda -Galahitiyawa-Sirimalwatta-Gaswatta Road	PRDD		1.70			1		NR		NR	
11	UBA373	Chelsiwatta - Lower Katugaha Road	PS	PRDD	3.57		1	1	1				
12	UBA223	Kurukudegama Post Office to Warakadanda Pitakadura Road	PS		1.59	40%	1	1	1			NR	
13	UBA391	Mahathanna Bypass Road	PS		0.92	7%	1	1	1	NR		NR	
<b>Total</b>					<b>69.79</b>		8	11	9	0	0	0	0

Table 20 - Badulla Package 8 (BA08) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC - 25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UBA101	Koslanda to Punagala Road	RDA		11.30	10%	1	1	1				
2	UBA076	Badulla-Colombo main road to Bathgoda Okwel Road	PS		1.20	85%	1	1	1	NR	1	NR	
3	UBA077	Badulla-Colombo Road to Bathgoda Ranwanguhawa Road	PS		1.05	90%	1	1	1	NR	1	NR	
4	UBA124	From We Eliya junction to School Road	PRDD		0.95	97%	1	1		NR	1	NR	
5	UBA135	Gampaha, Kolongastenna Road	PRDD		8.15	30%	1	1	1	1			
6	UBA162	Heewelkadura, Nikapitiya Road	PRDD		7.20	15%	1	1	1				
7	UBA312	Seelathenna Madola Road	PS	PRDD	1.84	20%	1	1	1	NR		NR	
8	UBA115	Rohamtan Estate to Madawalakapalla Road	PS		1.28	05%	1	1	1	NR		NR	
<b>Total</b>					<b>59.35</b>		8	8	7	1	3	0	0

Table 21 - Monaragala Package 1 (MO01) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC - 25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UMO004	2nd Mile Post, Meegahayaaya via Bogahapelessa Road	PS		3.70		1	1					
2	UMO016	Alupotha Junction to Kalugaha Wadiya Road	PS		3.68	85%	1	1	1	NR		NR	
3	UMO025	Atpattiya- Karagaskadura- Meyanakadura- Ranugalla	PRDD	PS	2.61		1	1					
4	UMO028	Badalkubura-Karawilaella Road	PRDD		7.99	56%	1	1	1	1			
5	UMO031	Balakumbura-Bogahapellasa (Lunugala Janapadaya) Road	PRDD		12.32	35%	1	1	1	1			
6	UMO058	Madamagama Junction to Yatimulla, Karadawatta Sec.i & ii	PS		4.06		1	1					
7	UMO098	Maligathanna Road	PS		2.30	5%	1	1	1	NR		NR	
8	UMO110	Namunukula- Miyanakadura Road	PRDD		15.31	13%	1	1	1				
9	UMO143	11 Kanuwa, Madugahapitiya Road	PS		1.48		1	1		NR		NR	
10	UMO108	Nakkala Mediriya Kubukkana Road	PRDD		9.81	14%	1	1	1				
<b>Total</b>					<b>63.26</b>		10	10	6	2	0	0	0



Table 22 - Monaragala Package 2 (MO02) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC - 25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UMO093	Madukotan Arawa to Udagangoda Road	PS		3.50	70%	1	1	1	1	1		
2	UMO094	Madukotan Arawa Tuntala Athlaamulla Road	PS	PRDD	6.5	70%	1	1	1	1	1		
3	UMO147	Madukotan Arawa Helathunthala Punsisigama Junction Road	PS		2.83	90%	1	1	1	NR	1	NR	
4	UMO048	Development of the Keppetipola lane	PS		0.61	100%	1	1	1	NR	1	NR	1
5	UMO075	Kahambana Kalugammulla Road	PS		2.08	20%	1	1		NR		NR	
6	UMO144	Batugammana Waralanda Nawugala Road	PS		2.82	40%	1	1	1	NR		NR	
7	UMO035	Beraliyapola-Kolonwinna Road	PRDD		7.24	22%	1	1	1				
8	UMO041	Buthsaranapitiya-Guruhela Road	PS		2.37	48%	1	1	1	NR	1	NR	
9	UMO049	Mr. Proyantha's boutique to Wedikumbura	PS		2.01	48%	1	1	1	NR	1	NR	
10	UMO106	Monaragala Jiloan Road	PS		5.46	2%							
11	UMO116	Near by Sirigale Hospital to Magandana Mulla Road	PS		1.55	45%	1	1	1	NR		NR	
12	UMO140	Weheragala-Ampitiya Road	PRDD		5.72	20%	1	1	1				
13	UMO010	Abalanda Alupathagala Road	PRDD	PS	7.23	20%	1	1	1				
14	UMO055	Dombaghawela-Ampitiya-Pahatha Arawa-Wiloya Road	PRDD		14.20	04%							
<b>Total</b>					<b>64.04</b>		12	12	11	2	6	0	1

Table 23 - Monaragala Package 3 (MO03) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC - 25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UMO138	Hathporuwe polajunction to Somadevi School Road	PS	PRDD	3.34	97%	1	1	1	1	1	1	
2	UMO148	Mahagama Bandara Mawatha Sec.i, ii & iii	PS		2.21	50%	1	1	1	NR	1	NR	
3	UMO149	Mahagama Ranaviru Mawatha Sec. I to v	PS	PRDD	4.71	76%	1	1	1	1	1		
4	UMO150	Mahagama Saliya Mawatha Sec.i to vii	PS	PRDD	4.51	80%	1	1	1	1	1	1	
5	UMO151	Mihidugama Main Road Sec.i & ii	PS		2.50	50%	1	1	1	NR			
6	UMO152	Mihidupura Main Road	PS		2.62	27%	1	1	1	NR		NR	
7	UMO155	Thalapatha ginigala Road	PS	PRDD	2.83	81%	1	1	1	NR	1	NR	
8	UMO003	1st Lane, Bogaha Junction	PS		1.25	100%	1	1	1	NR	1	NR	1
9	UMO052	Diwlana to Kiriibbanara	PS	PRDD	3.74	57%		1	1	1	1		
10	UMO074	Indikolapelessa first road school to Second Village Road	PS		2.17	50%	1	1	1				
11	UMO115	Kiriibbanwewa Bandaranayaka School to Left Bank Road	PS		1.14	76%	1	1	1	NR	1	NR	
12	UMO145	Dalukkatiya watarawuma Road Sec.i & ii	PS	PRDD	2.71	82%	1	1	1	NR	1	NR	
13	UMO146	Habaraththawela Diwulmandiya Main Road Sec.i & ii	PS		3.17	29%		1	1				
14	UMO079	Kandiyapita-Bogaswewa junction to Diulana	PS		1.88	13%	1	1	1	NR			
15	UMO012	Agunakolapalassa 17 to Wijayapura School	PS		2.30	12%	1	1	1	NR		NR	
16	UMO069	Hambegamuwa Junction to Rathwalawa Road Sec.i & ii	PS	PRDD	7.75	42%	1	1	1	1			

17	UMO070	Hambegamuwa Temple junction to Rathabalawa	PS	PRDD	2.56	26%	1	1	1	NR		NR	
18	UMO089	Laginagala Road Galeramankada to Bogaswawa	PRDD		3.30	19%	1	1	1				
19	UMO090	Laginagala-Damwelodaya Road	PRDD		4.60	35%	1	1	1	1			
20	UMO097	Kiwula to Kandiypita	PS		7.18	07%	1		1				
<b>Total</b>					<b>67.76</b>		18	19	20	6	9	2	1

Table 24 - Monaragala Package 4 (MO04) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC -25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UMO047	Development of Saddhathissa road in Maligawila	PS		2.04		1		1	NR		NR	
2	UMO050	Development of Weliara Ilukpitiya Road	PS		2.07		1		1	NR		NR	
3	UMO120	Okkampitiya Dabeyaya	PRDD		1.38	02%	1	1	1	NR		NR	
4	UMO121.i	Old Buththala Junction to Kukurampoala Junction Sec i	PS		10.51	37%	1	1	1	1			
5	UMO121.ii	Old Buththala Junction to Kukurampoala Junction Sec ii	PS		8.14	01%	1	1	1				
6	UMO121.vi	Old Buththala Junction to Kukurampoala Junction Sec vi	PS		10.20		1	1	1				
7	UMO122	Palwatta Co-operative via Gonagodalla-Kukurampola Road	PS		1.97	87%	1	1	1	NR	1	NR	
8	UMO137	Unawatuna, Pasal Mawatha, Lunugala janapadaya	PRDD	PS	2.82	02%	1	1	1	NR		NR	
9	UMO059	From Pelwatta Junction to Passara Road	RDA		11.59	23%	1	1	1				
10	UMO042	Cross Road in Diyawara Gammamaya	PS		1.01		1			NR		NR	
11	UMO064	Galahitiya Road, Katharagama	PS		1.16		1			NR		NR	
12	UMO072	Horambawa-Suduwathura aara-Galtemandiya Road	PRDD		13.07	02%	1	1	1				
<b>Total</b>					<b>65.96</b>		12	8	10	1	1	0	0

Table 25 - Monaragala Package 5 (MO05) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC - 25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UMO001	Abagolla-Sinhapura Road	PRDD	PS	5.98	78%	1	1	1	1	1		
2	UMO005	5th Mile Post to Thithhawalkiula	PRDD		4.27	96%	1	1	1	1	1	1	
3	UMO006	5th Mile post Yalkubura Road (Via Kotagama Mallhewa )	PRDD		6.17	93%	1	1	1	1	1	1	
4	UMO039	Bibila Watta Road	PS		2.98	96%	1	1	1	NR	1	NR	
5	UMO076	Kahatyanwela Mellagama Road	PRDD		6.02		1						
6	UMO008	8 Mile Post Dahagoniya Nakkalagoda Road	PS		1.46	5%	1	1	1	NR		NR	
7	UMO015	Alhena 8 Mile Post Road (Near Anandaraama Temple)	PS		1.43	5%	1	1	1	NR		NR	
8	UMO038	Bibila Mulla Yalkumbura Road	PRDD		6.61	44%	1	1	1	1			
9	UMO111	Nannapurawa - Bibilamulla Road	PRDD		1.48	85%	1	1	1	NR	1	NR	
10	UMO112	Nannapurawa Dahamgama Alutwela Road	PRDD		9.26	22%	1	1	1				
<b>Total</b>					<b>62.73</b>		10	9	9	4	5	2	0

Table 26 - Monaragala Package 6 (MO06) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Road Category Changed	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC -25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UMO007	68 Junction to Hadapanagala Malwaththawela Sec.i	PS		2.91	20%	1	1	1	NR		NR	
2	UMO011	Handapanagala School to Randenigodayaya	PS		4.64	20%	1	1	1				
3	UMO019	Athiliwawa Aluthhela Road Sec.i & ii	PRDD	PS	17.25	17%	1	1	1				
4	UMO020	Athiliwawa- D.S. Gama Road	PRDD		4.22	70%		1	1	1	1		
5	UMO021	Athiliwawa Junction to D.S.Gama Sec.i & ii	PRDD		10.75	20%	1	1	1				
6	UMO022	Athiliwawa-Mahaaragama Ulkanda-Hadapanagala Road	PRDD		11.77	70%	1	1	1	1	1		
7	UMO062	From Weherayaya Junction to Siripuragama	PS		5.42	55%	1	1	1	1	1		
8	UMO068	Hadapanagala Junction-Hadapanagala Road	PRDD		7.94	25%		1	1	1			
9	UMO086	Kudaoya Purana Balaharuwa Road	PS		3.53	3%	1	1	1				
10	UMO117	Near the Buduruwagala school to Buduruwagala road	PS	PRDD	2.19	3%	1	1	1	NR		NR	
11	UMO087	Kukurampola Junction - Janawasa (4/9/11)-Hadapanaagala	PS		2.90	48%		1	1	NR	1	NR	
<b>Total</b>					<b>97.91</b>		8	11	11	4	4	0	0

Table 27 - Monaragala Package 7 (MO07) SSEMAP and EMC Summary

S N	Code	Road Name	Road Category	Length (km)	Progress	Crack Survey	SSEMAP	EMC Pre-Con	EMC - 25%	EMC - 50%	EMC - 75%	EMC - 100%
1	UMO054	Dombagahawela-Dematabedda-Maria Arawa Road	PRDD	8.05		1						
2	UMO104	Mariarawa-Ritigahawatta-Buddama Road	PRDD	11.06	20%	1						
3	UMO024	Atimale Kotiyagala via 22	PRDD	7.74	20%		1					
4	UMO057	From 9th mile post to Buddama	PRDD	7.54	70%		1	1				
5	UMO077	Kandauda Panguwe 6 mile post Kongaspitiya	PRDD	7.60	90%	1	1	1				
6	UMO091	Maariarawa Buddama Road	PRDD	2.54		1			NR		NR	
7	UMO130	Siyabalanduwa Ampara (4 Village, 2 Village)	PS	3.61	90%	1	1	1				
8	UMO131	Siyabalanduwa Kolongaspitiya Road	PS	11.56	75%	1	1	1				
<b>Total</b>				<b>63.92</b>		6	5	4	0	0	0	0

## 4.7 Summary of License and approvals for materials

31. License and permits obtained by the contractors according to the table 3 in EARF for iRoad - 2 programme are summarized below. These licenses and approvals have been submitted to PIC06 for concurrence. Contractors are facing difficulties to find suitable locations for burrow pits due to terrain of Badulla District and NBRO has declared many locations as land slide prone areas. Most of the lands in packages in Badulla fallen in Tea estates, this situation the Tea estate owners are not giving the lands to operate Burrow pits. In Monaragala District most of the burrow areas belongs to Mahaveli Authority and Forest Department. These locations are not accepted to operate Burrow pits.
32. Contractors were encouraged to use existing material extraction locations and plants to minimize environmental degradation and were advised to reuse excavated materials for construction activities as much as possible with guidance of material experts in PIC06.
33. The Contractors are using commercial plants, Quarries and Burrow pits as material sources. PIC06 request to submit license and permit copies beforehand, to Resident Engineers for material source approvals. The Contractors are renewing the licenses according to the expiry dates mentioned in the license, renewed licenses submit to the Engineer for review.

Table 28 - Summary of License and approvals for materials - BA01

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	NEM	Kovilyaya, Mahiyanganaya	18/12/2018	17/12/2019	06721(R5)	01/01/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	NEM	Kovilyaya, Mahiyanganaya	18/12/2018	17/12/2019	06722(R5)	01/01/2019	31/12/2019	NA	NA	NA
3	Quarry	Mr.R.M.N. Wijethunga	Arawaththa, Mahiyanganya	05/08/2019	04/08/2020	11257(R4)	05/02/2019	31/12/2019	28/08/2019	27/02/2020	IML/B/HO/2994/LR/7
4	Borrow Pit01	Mr W.G. Chandrapala	No 45/1/2 mile post, gonagala Rd, Padiyathalawa	EC-No UPO/BD/08/03/EC/03/2019			N/A	N/A	12/06/2019	11/12/2019	IML/B/HO/12996
5	Borrow Pit02	Mr D.M.N. Disanayaka	Wevaththa, Mahiyanganaya	EC-No UPO/BD/08/03/EC/04/2019			N/A	N/A	06/06/2019	13/03/2020	IML/B/HO/12982
6	Borrow Pit03	Mr R. Pathmasiri	Wevaththa, Mahiyanganaya	EC-No UPO/BD/08/04/EC/05/2019			N/A	N/A	07/06/2019	13/03/2020	IML/B/HO/12984
7	Borrow Pit04	Mr D.M.Lakshman Disanayaka	Track 10,New,Uva thissapura	EC-No UPO/BD/08/05/EC/07/2019			N/A	N/A	19/08/2019	29/05/2020	IML/B/HO/13186
8	Borrow Pit5	Mr U.G.C.P. Udawaththa	No 123,Belaganwewa,Giradurukotte	EC-No UPO/BD/08/06/EC/07/2019			N/A	N/A	19/08/2019	29/05/2020	IML/B/HO/13185



Table 29 - Summary of License and approvals for materials - BA02

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	Access Engineering (PVT)Limited	Access Engineering (PVT) Limited, UdaMailapitiya, Mailapitiya.	16/06/2019	15/06/2020	12774(R <sub>3</sub> )	09/01/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	Bandara Metal Crusher (PVT) Limited	Bandara Metal Crusher (PVT) Limited,Bathalayaya.	18/07/2019	17/07/2020	14917 (R <sub>1</sub> ) F <sub>1</sub>	14/05/2019	31/12/2019	15/07/2019	31/12/2019	IML/B/HO/11107/LR/1
3	Quarry	Bandara Metal Crusher (PVT) Limited	Bandara Metal Crusher (PVT) Limited,Bathalayaya.	18/07/2019	17/07/2020	14917 (R <sub>1</sub> ) F <sub>1</sub>	14/05/2019	31/12/2019	15/07/2019	31/12/2019	IML/B/HO/11107/LR/1
4	*Borrow Pit	Mr. D.M.Guanpala, Pimburaulpatha, Aluthgedara	UBA 212	IML Licenses are under process							
		Mr. D.M.Weerasinghe	UBA 295	IML Licenses are under process							
		Mr. Lalith Amarasinghe	UBA 199	IML Licenses are under process							
5	Concrete Batching plant	Komuthi Engineering (PVT)Limited	16 <sup>th</sup> Mile post, Meegahakivula, Badulla.	Applied for renew license			22/04/2019	31/12/2019	NA	NA	NA

\*NCR issued to the Contractor subject to delay obtaining IML for Burrow pits

Table 30- Summary of License and approvals for materials - BA03

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	CML-MTD Construction Ltd.	Sooriyawewa	28/10/2019	27/10/2020	07039(R4)	29/01/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	W.M.C.B. WEERASEKARA	Mahiyaganaya	26/06/2019	26/06/2020	05322	08/01/2019	31/12/2019	NA	NA	NA
3	Quarry	W.M.C.B. WEERASEKARA	Mahiyaganaya	-	-		08/01/2019	31/12/2019	29/04/2019	31/12/2019	Applied for renewal
4	Borrow Pit	R. M. Bandara Manika	Kendagolla	N/A	N/A	NA	-	-	-	-	Applied for IML
5	Borrow Pit	Thelbedda Estate	malangamuwa								Applied for IML
6	Borrow Pit	Kendagolla, Secondary School, Ground	Kendagolla								Applied for IML
7	Concrete Batching plant	Thudawe and brothers	Hali-ela	14/01/2019	13/01/2020	16203 (R0)	28/02/2019	31/12/2019	N/A	N/A	N/A

Table 31 - Summary of License and approvals for materials- BA04

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No	Other		
				From	To		From	To	From	To		From	To	License No
1	Asphalt Plant	Upul Bandara Weerasinghe	Udamailapitiya Mailapitiya	16/06/2019	15/06/2020	12774(R <sub>3</sub> )	01/01/2019	31/12/2019	NR	NR	NR	-	-	-
2	Crusher Plant	D.M.R.U. Dissanayake Nimsara Constructions	Nimsara Constructions, Queenstown Estate Alugolla Hali-ela	05/02/2019	04/02/2020	10433(R <sub>4</sub> )F1	01/01/2019	31/12/2019	NR	NR	NR	-	-	-
3	Quarry	Nimsara Constructions	Queenstown Estate Alugolla Hali Ela	24/03/2018	23/03/2020	02661(R <sub>7</sub> )	12/02/2019	31/12/2019	15/11/2019	12/05/2020	IML/A/HO/2326/LR/8	-	-	-
4	Concrete Batching plant	Thudawe brothers	Hali-ela, Nuwaraeliya road	14/01/2019	13/01/2020	16203(R0)	01/01/2019	31/12/2019	NR	NR	NR	-	-	-
5	Explosive License	CNTIC RDCE JV	P.Chandrasiri	NR	NR	NR	NR	NR	NR	NR	NR	09/10/2019	08/04/2020	303037

Table 32 - Summary of License and approvals for materials - BA05

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	Access Engineering (Pvt) Ltd	Uda Mailapitiya Pahatha Hewaheta 7.227794 80.751927	16/06/2019	15/06/2020	12774 (R <sub>3</sub> )	09/01/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	P.L.P Construction	No 14, Nuwara Eliya road Welimada 6.891377 80.931954	05/02/2019	04/02/2020	10433(R <sub>4</sub> )F <sub>1</sub>	11/02/2019	31/12/2019	NA	NA	NA
3	Quarry	P.L.P Construction	No 14, Nuwara Eliya road Welimada 6.891377 80.931954	31/03/2019	20/03/2020	05970(R <sub>6</sub> )	11/02/2019	31/12/2019	24/06/2019	04/06/2020	IML/B/HO/6861/LR/6
4	Borrow Pit	Cut area material is using for construction works. Got approval for use tunnel muck in Uma Oya Project.									
5	Concrete Batching plant	Orient Construction Company (Pvt) ltd	Hetan Road, Kelegala, Nuwara Elila 6.9527310 80.7722720	17/02/2019	16/02/2020	06892(R <sub>5</sub> )	05/02/2019	31/12/2019	NA	NA	NA

Table 33 - Summary of License and approvals for materials - BA06

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML (GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	CML-MTD Construction Ltd.	Sooriyawewa	28/10/2019	27/10/2020	07039(R4)	29/01/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	Kingswood Group	Hali Ela	05/04/2019	04/04/2020	15214(R <sub>1</sub> )	29/01/2019	31/12/2019	NA	NA	NA
3	Quarry	Kingswood Group	Hali Ela	30/09/2019	29/09/2020	02988(R <sub>7</sub> )F <sub>1</sub>	08/02/2019	31/12/2019	04/09/2019	10/04/2020	IML/A/HO/2918/LR/7
4	Borrow Pit	No need of a Barrow pit as cut area materials are using for soil requirements.									
5	Concrete Batching plant	Tudawe Brothers (Pvt) Ltd.	Hali Ela	14/01/2019	13/01/2020	16203 (R <sub>0</sub> )	28/02/2019	31/12/2019	NA	NA	NA

Table 34 - Summary of License and approvals for materials - BA07

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	CML-MTD construction Ltd.	Sooriyawewa	28/10/2019	27/10/2020	07039(R4)	29/01/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	Kingdwood	Hali-ela	05/04/2019	04/04/2020	15214(R <sub>1</sub> )	08/02/2019	31/12/2019	NA	NA	NA
3	Quarry	Kingdwood	Hali-ela	30/09/2019	29/09/2020	02988(R <sub>7</sub> )F <sub>1</sub>	08/02/2019	31/12/2019	24/09/2019	10/04/2020	IML/A/HO/2918/LR/7
4	Concrete Batching plant	Thudawa Brothers	Attampitiya	29/01/2019	28/01/2020	16165(R <sub>0</sub> )	20/01/2019	31/12/2019	NA	NA	NA

Table 35 - Summary of License and approvals for materials - BA08

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	Kithminacanstruction	Balangoda	27/03/2019	26/03/2020	CEA/a-76718	28/03/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	MrKamilas (BNC Mettle Crusher)	Balangoda	29/11/2018	28/11/2019	02674(R3)	01/01/2019	31/12/2019	NA	NA	NA
3	Quarry	MrKamilas (BNC Quarries)	Balangoda	06/11/2019	15/11/2020	15991(R1)	10/01/2019	31/12/2019	16/10/2019	31/12/2019	11881/LR/1
4	Borrow Pit	Mis TM Podimanike (presently this burrow pit is not in use)	Thubathanna, Belihuloya	17/07/2019	16/10/2019	Sa/Rn/08/03/ soil/14/19	17/07/2019	31/12/2019	17/07/2019	16/10/2019	035648
5	Concrete Batching plant	Use for site concrete mixer		Not Required to approval to CEA. for Site concrete mixer	NA	NA	Not Required	NA	NA	NA	NA

Table 36 - Summary of License and approvals for materials - MO01

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML No:
				From	To		From	To	From	To	
1	Asphalt Plant	AMSK Construction (Pvt) Ltd	Yalkumbura	03/04/2019	02/04/2020	16398(R0)	22/04/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	M.B.Chandana	Yudaganawa	12/10/2019	11/10/2020	15914(R0)	01/01/2019	31/12/2019	NA	NA	NA
3	Crusher Plant	M.B.Chandana	Yudaganawa	06/12/2019	05/12/2020	03553 ( R7)		31/12/2019	NA	NA	NA
4	Crusher Plant	AMSK Construction (Pvt) Ltd	Yalkumbura	13/03/2019	12/03/2020	16394(R0)	01/01/2019	31/12/2019	NA	NA	NA
5	Crusher Plant	AMSK Construction (Pvt) Ltd	Yalkumbura	24/08/2019	25/02/2020	14327 (R2)		31/12/2019	NA	NA	NA
6	Quarry	M.B.Chandana	Yudaganawa	24/05/2019	23/05/2020	14024(R2)	01/01/2019	31/12/2019	10/12/2018	10/12/2019	IML/B/HO/6 246/LR/4
7	Borrow Pit	K.M.Ruwan Karunadasa	Lunugala colony	28/12/2018	27/12/2019	DO/MG/08/ 03/EC/06/2015	03/01/2019	31/12/2019	28/12/2018	27/12/2019	IML/B/HO/1 0512/LR/1
8	Concrete Batching plant	DMP Holdings	Yudaganawa	27/09/2019	28/09/2020	15854(R0)	24/01/2019	31/12/2019	NA	NA	NA



Table 37 - Summary of License and approvals for materials - MO02

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	TBL	Bibila	26/08/2019	25/08/2020	06378(R6)	01/01/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	TBL	Bibila	25/08/2019	2020.08..25	06379 (R6)	01/01/2019	31/12/2019	NA	NA	NA
3	Quarry	TBL	Bibila	01/01/2019	31/12/2019	14290 (R2)	01/01/2019	31/12/2019	27/08/2019	28/08/2020	IML/C/HO/N/3410/ LR/6
4	Borrow Pit	Tudawe Brothers (Pvt) Ltd, Waththegama	Waththegama	25/04/2019	24/04/2020	ER No DO/MG/08/03/EC/09/2019	-	-	08/06/2019	09/06/2020	IML/B/HO/12989
5	Concrete Batching plant	TBL	Bibila	25/11/2019	26/11/2020	06618(R6)	01/01/2019	31/12/2019	NA	NA	NA
6	Any other	-	-	-	-	-	-	-	-	-	-

Table 38 - Summary of License and approvals for materials - MO03

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt plant	Maga Engineering	Mirijjawela	03/04/2019	02/04/2020	02092(R10)(F1)	25/04/2019	31/12/2019	NA	NA	NA
2	Crusher	Rajapaksha	Ridiyagama	18/07/2019	17/07/2020	15539(R1)	11/02/2019	31/12/2019	NA	NA	NA
		Maxtone	Wijayapura	20/09/2019	21/09/2020	14093(R2)	05/01/2019	31/12/2019	NA	NA	NA
		Abenayaka metal crusher	Kolambageara	08/06/2019	07/06/2020	02548(R10)	19/09/2019	31/12/2019	NA	NA	NA
3	Quarry	Rajapaksha	Ridiyagama	09/01/2019	08/01/2020	14903(R1)	05/01/2019	31/12/2019	08/11/2018	31/10/2019	IML/B/HO/11130/LR/1
		Maxtone	Sooriya ara	01/04/2019	31/03/2020	12512(R3)	05/01/2019	31/12/2019	07/08/2019	06/02/2020	IML/C/HO/N/11783/LR/1
		Abenayaka metal crusher	Kolambageara	10/07/2019	09/07/2020	15506(R1)	30/01/2019	31/12/2019	03/07/2019	22/05/2020	IML/B/HO/11884/LR/1
4	Borrow Pit	M.P.Rubasinghe	Aluthwewa	24/04/2019	23/04/2020	DO/MG/08/03/EC/08/2019	NA	NA	02/05/2019	01/11/2019	IML/B/HO/12868
		K.Sumathipala	Hambegamuwa	05/04/2019	04/04/2020	DO/MG/08/03/EC/14/2019	NA	NA	06/05/2019	25/03/2020	IML/B/HO/12877
		S.M.Chandarpala	Koul-ara North	14/02/2019	13/02/2020	DO/MG/08/03/EC/02/2019	NA	NA	12/06/2019	07/01/2020	IML/A/HO/12999
5	Concrete Batching plant	Osaka	Embilipitiya	11/02/2019	10/02/2020	16288(R <sub>0</sub> )	04/01/2019	31/12/2019	NA	NA	NA

Table 39 - Summary of License and approvals for materials - MO04

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	CML-MTD construction Ltd.	Sooriyawewa	28.10.2019	27.10.2020	CEA A 64625	29/01/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	Dharamasena Metal Crusher	1 <sup>st</sup> lane, Monaragala road, Buththala.	24/12/2018	23/12/2019	CEA A 76897	28/01/2019	31/12/2019	NA	NA	NA
3	Quarry	Chandrika Priyadarshani	1 <sup>st</sup> lane, Monaragala road, Buththala.	24/12/2018	23/12/2019	CEA A 76896	28/01/2019	31/12/2019	-	-	RENEWAL SERIAL NO: 10MNGR0000144366
4	Borrow Pit	R.M. Vijitha	8 <sup>th</sup> post, Badalkumbura	10/09/2019	26/03/2020	DO/MG/08/03/E C/21/2018	03/01/2019	02/10/2019	10/09/2019	26/03/2020	IML/B/HO/12808
5	Concrete Batching plant	DMP Ready mix	Temple road, Yudhaganawa, Buththala	28/09/2019	27/09/2020	CEA A 106766	24/01/2018	31/12/2019	NA	NA	NA

Table 40 - Summary of License and approvals for materials - MO05

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	Tudawe Brothers (Pvt)Ltd	Pitakubura, Bibile	26/08/2019	25/08/2020	06378(R6)	28/01/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	Tudawe Brothers (Pvt)Ltd	Pitakubura, Bibile	26/06/2019	25/06/2020	06379(R6)	06/02/2019	31/12/2019	NA	NA	NA
3	Quarry	Chandra Construction	Bibile	01/01/2019	31/12/2019	14290(R2)	17/01/2019	31/12/2019	11/09/2019	28/08/2020	IML/BH/HO/3410/LR/6
4	Borrow Pit	A.H.Priyantha Kumara	Pitakubura, Bibile	✓ (Consent letter from CEA)			01/08/2019	31/12/2019	23/07/2019	03/06/2020	IML/BH/HO/13128
5	Borrow Pit	Tudawe Brothers (Pvt)Ltd	Malhewa, Bibile	✓ (Consent letter from CEA)			07/05/2019	31/12/2019	10/06/2019	04/04/2020	IML/BH/HO/12992
6	Concrete Batching plant	Tudawe Brothers (Pvt)Ltd	Pitakubura, Bibile	27/11/2019	26/11/2020	06618(R6)	28/01/2019	31/12/2019	NA	NA	NA

Table 41 - Summary of License and approvals for materials - MO06

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of Plant	Supplier Name	Location	EPL		EPL, No	TL		IML(GSMB)		IML, No
				From	To		From	To	From	To	
1	Asphalt Plant	Hovael construction (pvt) ltd	05 <sup>th</sup> Mile Post, Anapallama, Wellawaya	01/04/2019	31/03/2020	16475(R <sub>0</sub> )	05/02/2019	31/12/2019	NA	NA	NA
2	Crusher Plant	Hovael construction (pvt) ltd	05 <sup>th</sup> Mile Post, Anapallama, Wellawaya	01/10/2019	30/09/2020	15913(R <sub>1</sub> )	05/02/2019	31/12/2019	NA	NA	NA
3	Quarry	Rented by Hovael construction (pvt) ltd	No. L/03, New road, Etiliwewa. GPS coordinates 160239 N 240878 E	07/11/2018 (Applied for renewal)	06/11/2019 1. Payment done 2. inspection done	15986(R <sub>0</sub> )	25/01/2019	31/12/2019	09/07/2019	26/05/2020	IML/B/HO/11758/LR/1
4	Borrow Pit	Mr. W.A.K.C. Rohana	GPS coordinates 6.634929 N, 81.138609 E Mahaaragama	ER available	ER available	DO/MG/08/03/EC/27/2018	05/02/2019	31/12/2019	22/10/2018	19/07/2019 (applied for renewal - Currently not supply)	IML/B/HO/12381
5	Concrete Batching plant	Hovael construction (pvt) ltd	Hovael construction (pvt) ltd, Irrigation rd, Atiliwewa	Applied for EPL (app serial no. 221067)	1. App. Submitted 2. payment done 3. CEA inspection don	Pending	Pending	Pending	NA	NA	NA

Table 42 - Summary of License and approvals for materials - MO07

(EPL: Environmental Protection License, TL: Trade License, IML: Industrial Mining License)

SN	Type of plant	Supplier name	Location	EPL		EPL, NO	TL		IML(GSMB)		IML, NO
				From	To		From	To	From	To	
01	Asphalt Plant	Tudawe Brothers (Pvt) Ltd.	Kongaha Kiula Land 7 <sup>th</sup> mile post Pitakumbura	26/08/2019	25/08/2020	06378 (Rs)	27/01/2019	31/12/2019	NA	NA	NA
02	Crusher Plant	Tudawe Brothers (Pvt) Ltd.	Kongaha Kiula Land 7 <sup>th</sup> mile post Pitakumbura	26/06/2019	25/06/2020	06379 (Rs)	06/02/2019	31/12/2019	NA	NA	NA
03	Quarry	Chandra Construction	Infront of Govi farm Badulla Road Bibila.	01/01/2019	31/12/2019	14290 (Rs)	17/01/2019	31/12/2019	11/09/2019	28/08/2020	IML/C/HO/341 0/LR/6
04	Quarry	Mr. M.B. Chandana (Rathna)	Akkara Panahe Idama, Yudaganawa	24/05/2019	23/05/2020	14024 R <sup>2</sup>	04/02/2019	31/12/2019	22/06/2019	31/05/2020	IML/B/HO/624 6/LR/4
05	Concrete Batching plant	Tudawe Brothers (Pvt) Ltd.	Nilgala 7 <sup>th</sup> mile post Panmadilla	27/11/2019	26/11/2020	06618(Rs)	28/01/2019	31/12/2019	NA	NA	NA
06	Borrow Pit	Tudawe Brothers (Pvt) Ltd	Wattegama Vihare	10/07/2019	09/07/2020	NA	NA	NA	17/09/2019	09/06/2020	IML/B/HO/129 89



Figure 5 - MO06 Asphalt Plant



Figure 6 – MO05 Concrete Batching Plant



Figure 7 – MO06 Completed Disposal Yard



Figure 8 – BA01 Crusher Plant



#### 4.8 Context Sensitive Design (CSD) Applications and Elderly, Women, Child Friendly Designs (EWCD)

34. The Context Sensitive Design (CSD) concept was successfully practiced in Southern, Central, Sabaragamuwa, North Western, and North Central Provinces and Kalutara District. As a result of the concept success, it is introduced to the iRoad 2 (Uva) programme and incorporated to the Uva iRoad programme.

35. There have been awareness programs and field level trainings on CSD to develop the knowledge and skills related to field level application of the PIU and PIC06 staff. Mr Saranga Gajasinghe (TA Consultant for ADB) conducted four refreshing awareness programmes and field trainings for each RE regions on 27<sup>th</sup> May 2019 to 30<sup>th</sup> May 2019.

36. During Mr. Gajasinghe's Training sessions he explained to use maximum land usage within the existing corridor specially in Badulla district and site inspections were conducted in UBA055 road of BA06 package on 27<sup>th</sup> May 2019.



Figure 9 – Field training conducted by Mr. Gajasinghe in BA06 Package on 27.05.2019. Mr. Gajasinghe explain how to utilize the available road corridor to rehabilitate the road.



Figure 10 – Detail discussion on CSD applications with RE-Bibila and Contractor MO02 at CE Office MO02.

37. Further, PIU and PIC06 staff was able to apply CSD/EWCD applications during the designing work of each package by incorporating PIC06 and contractors' findings and public requests. As per the findings and public requests, design changes were made to the original designs of the roads. One of the applications was made by the PIC06 and Contractor is to shift the centerline to save a Bo tree adjacent to UMO144 road as shown in figure 11. Likewise, there have been several applications and Annexure 5 summarizes the applications of CSD in each package.





Figure 12 - Saved tree Bo tree at 0+153 LHS UMO144 in MO02 Package



Figure 11 - Provide Handrails for steps under EWCD at Ch 2+025 RHS in UMO028, MO01 Package

## 4.9 Standard Environmental Monitoring Plan

38. Environmental baseline data are collected in all contract packages to establish environmental baseline according to the standard environmental monitoring plan given in the contract document. Environmental monitoring will be carried out in design stage (environmental baseline data establishment), construction stage, and operational stage. Air quality, water quality, and noise level testing will be carried out according to the National Air Quality Standards of Sri Lanka, National Water Quality Standards of Sri Lanka, and National Environmental Noise Control Regulations of Sri Lanka.

### 4.9.1 Ambient air quality

39. According to the contract document Volume III, Standard Environmental Monitoring Plan for Rural and National Roads, following parameters will be tested: TSPM, PM10, NO<sub>2</sub>, CO, SO<sub>2</sub>, Pb in 24 hours.

### 4.9.2 Water Quality

40. According to the contract document Volume III, Standard Environmental Monitoring Plan for Rural and National Roads, following parameters will be tested: Electric conductivity, BOD, pH, DO, TSS, Oil and Grease, Pb, *E. coli*.

### 4.9.3 Noise Level

41. According to the contract document Volume III, Standard Environmental Monitoring Plan for Rural and National Roads, noise level will be tested using dB level in three times per day.

42. Environmental Monitoring Plan for Construction stage and PBM stage will be monitored during the relevant stages. Environmental monitoring cost is considerably high and decided to conduct in PBM period to monitor the deviation of the parameters against the baseline data. If any environmental degradation observed or complaint received by Contractor, PIC06 and PIU, environmental test will be carried out to determinate the environmental deviation. The period of reporting, no complaints received and no any environmental damage observed/ reported to the PIC06 and PIU.

43. Environmental Baseline Data Collection details and results are included in the below tables.

Table 43 – Details of Environmental Baseline Data Collection and Locations (Air Quality)

package	Location Description	GPS Coordination	Parameter		Test Method	Concentration at location L1 (µg/m3)	Maximum Permission Level (µg/m3)	Conclusion
			RF NO	Parameter				
BA01	Mahiyanganaya, UBA 004 (1+660)	Latitude: 7.3242890 N Longitude: 81.0059520 E	1	Particulate Matter (PM10)	Gravimetric	45.2	100*	The measured Ambient air quality levels BA01 are within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	62.1	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	28	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	16*	80*	
			5	Carbon Monoxide	Automatic Analyzer	1250	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
BA02	Concrete batching plant-16th Mile Post, Meegahakivula	Latitude: 7.148112 N Longitude: 81.055568 E	1	Particulate Matter (PM10)	Gravimetric	46.2	100*	All measured ambient air quality parameters BA 02 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	63.4	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	*0.4	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	0.6	80*	
			5	Carbon Monoxide	Automatic Analyzer	**	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
BA03	UBA 099-Keppetipola road	Latitude: 6.991667 N	1	Particulate Matter (PM10)	Gravimetric	48.6	100*	The measured Ambient air quality levels BA03 were

	to Wimaladarma road (Near the Cancer hospital Badulla)	Longitude: 81.050997 E	2	Total Suspended Particulate Matter (TSPM)	Gravimetric	55.2	300*	within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	*0.8	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	**	80*	
			5	Carbon Monoxide	Automatic Analyzer	**	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
BA04	Open area close to Finalize factory, Hali-ella, Badulla.	Latitude: 6.943893 N Longitude: 81.033524 E	1	Particulate Matter (PM10)	Gravimetric	34.5	100*	The measured Ambient air quality levels BA01 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	52.1	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	**	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	12*	80*	
			5	Carbon Monoxide	Automatic Analyzer	600	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
BA05	Bridge near the beginning of Nadungamuwa road	Latitude: 6.903802 N Longitude: 80.909613 E	1	Particulate Matter (PM10)	Gravimetric	18.5	100*	The measured Ambient air quality levels BA05 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	28.4	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	<4	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	6*	80*	

			5	Carbon Monoxide	Automatic Analyzer	1800	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
BA06	0+0.000 of Road ID-084 Starting point of Road ID 084 (5th Kilometer post of Ella-Passara Road	Latitude: 6.871751 N Longitude: 81.075089 E	1	Particulate Matter (PM10)	Gravimetric	34.2	100*	The measured Ambient air quality levels BA06 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	57.6	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	12	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	14*	80*	
			5	Carbon Monoxide	Automatic Analyzer	1650	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
BA07	Bandarawela Hospital UBA 242,1+000	Latitude: 6.8440530 N Longitude: 80.985084 E	1	Particulate Matter (PM10)	Gravimetric	60.9	100*	The measured Ambient air quality levels BA07 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	132.9	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	*0.5	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	**	80*	
			5	Carbon Monoxide	Automatic Analyzer	1400	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
BA08	koslanda,poonagal a Road, 0+000	Latitude: 6.743386 N Longitude: 81.018122 E	1	Particulate Matter (PM10)	Gravimetric	28.2	100*	The measured Ambient air quality levels BA08 were within the permissible level of the ambient air quality standard stipulated by the Central
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	41.3	300*	

			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	14	100*	Environmental Authority of Sri Lanka
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	12*	80*	
			5	Carbon Monoxide	Automatic Analyzer	3600	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
MO01	Namunukuala – Near Post office	Latitude: 6.875912 N Longitude: 81.113067 E	1	Particulate Matter (PM10)	Gravimetric	28.2	100*	The measured Ambient air quality levels MO01 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	38.7	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	26	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	14	80*	
			5	Carbon Monoxide	Automatic Analyzer	2800	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
MO02	116, Nearby Sirigala Hospital to Magandanamulla Road 0+000	Latitude: 6.89317768 N Longitude: 81.34156255 E	1	Particulate Matter (PM10)	Gravimetric	38.6	100*	The measured Ambient air quality levels MO02 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	51.5	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	16	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	8*	80*	
			5	Carbon Monoxide	Automatic Analyzer	600	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	

MO03	UMO 148 Road Change. Sewanagala	Latitude: 6.32196 N Longitude: 80.940317E	1	Particulate Matter (PM10)	Gravimetric	20.6	100*	The measured Ambient air quality levels MO03 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	64.9	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	6*	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	**	80*	
			5	Carbon Monoxide	Automatic Analyzer	900	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
MO04	Pelwatta Passara road, Near CML Project office	Pelwatta Passara road, Near CML Project office Latitude: 6.758326 N Longitude: 81.188568 E	1	Particulate Matter (PM10)	Gravimetric	24.3	100*	The measured Ambient air quality levels MO04 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	35.3	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	8	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	6*	80*	
			5	Carbon Monoxide	Automatic Analyzer	1200	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
MO05	Machine was placed in the downwind and upper wind	Latitude: 257964 N Longitude: 2200007E	Sample 'X'	Total Suspended Particulate Matter (TSPM)	Gravimetric	343.96	300*	The measured Ambient air quality levels were exceeding the permissible level
		Latitude: 257958N Longitude: 219969E	Sample 'Y'	Total Suspended Particulate Matter (TSPM)	Gravimetric	142.74	300*	The measured Ambient air quality levels were within the permissible level

MO06	Road ID : UMO021.ii	Latitude: 6.598622 N Longitude: 81.093318 E	1	Particulate Matter (PM10)	Gravimetric	21.1	100*	The measured Ambient air quality levels MO06 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	40.2	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	**	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	8*	80*	
			5	Carbon Monoxide	Automatic Analyzer	220	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	
MO07	9 Mile Post, Buddama Road, Siyabalanduwa,	Latitude: 7.032411 N Longitude: 81.526046 E	1	Particulate Matter (PM10)	Gravimetric	68.7	100*	The measured Ambient air quality levels MO07 were within the permissible level of the ambient air quality standard stipulated by the Central Environmental Authority of Sri Lanka
			2	Total Suspended Particulate Matter (TSPM)	Gravimetric	92.4	300*	
			3	Nitrogen Dioxide	ASTM D 1607-91 Griess Saltzman Reaction	18	100*	
			4	Sulfur Dioxide	ASTM D 2914-01 West-Gaeke Method	12*	80*	
			5	Carbon Monoxide	Automatic Analyzer	1200	10,000*	
			6	Lead (Pb)	ICP OES analysis	**	0.5*	



Table 44 - Details of Environmental Baseline Data Collection and Locations (water quality)

Package	Location	Parameters		Results	LOQ (Limit of Quantification)	Requirement	Unit	Test Method	Conclusion
		No	Parameter						
BA01	Nagadeepa Tank of UBA119, 0+950	1	pH at 25°C*	7.6	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	8	-	Max.50	mg/l	APHA 23rd ed: 2017: APHA 2540D	Not Exceed
		4	Electrical Conductivity*	207	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	No LOQ
		5	Biological Oxygen Demand (BOD5) @ 20°C*	Not Detected	5	Max.30	mg/l	APHA 23rd ed: 2017: APHA 5210D	Not Exceed
		6	Dissolved Oxygen	6.9	-	-	mg/l	APHA 21 st Ed. 2005 4500O -C	
		7	Lead (as Pb) *	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461: Part 1/Section 3:2013	Not Detected
BA02	Surface Water RHS UBA 212, 0+060	1	pH at 25°C*	7.4	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed

		3	Total Suspended Solids (TSS)*	4	-	Max. 50	mg/l	APHA 23rd ed: 2017: APHA 2540D	No LOQ
		4	Electrical Conductivity*	684	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	No LOQ
		5	Biological Oxygen Demand (BOD5) @ 20°C*	Not Detected	5	Max.30	mg/l	APHA 23rd ed: 2017: APHA 5210D	Not Exceed
		6	Dissolved Oxygen	6.9	-	-	mg/l	APHA 21 <sup>st</sup> Ed. 2005 4500O -C	
		7	Lead (as Pb) *	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461: Part 1/Section 3:2013	Not Detected
BA03	Waste Water UBA 147, Goradiyawaka, Ampitiya, Kandearawa Road (Water stream at starting point of the road	1	pH at 25°C*	7.1	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	8	-	Max.50	mg/l	APHA 23rd ed: 2017: APHA 2540D	Not Exceed
		4	Electrical Conductivity*	101.4	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	No LOQ
		5	Biological Oxygen Demand (BOD5) @ 20°C*	Not Detected	5	Max.30	mg/l	APHA 23rd ed: 2017: APHA 5210D	Not Exceed
		6	Dissolved Oxygen	6.6	-	-	mg/l	APHA 21 <sup>st</sup> Ed. 2005 4500O -C	

BA04	Water Sample Near LHS 3+185, Surface Water Pit	7	Lead (as Pb) *	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461: Part 1/Section 3:2013	Not Detected
		1	pH at 25°C*	7.1	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	8	-	max 50	mg/l	APHA 23rd ed: 2017: APHA 2540D	Not Exceed
		4	Electrical Conductivity*	101.4	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	No LOQ
		5	Biological Oxygen Demand (BOD5) @ 20°C*	Not Detected	5	Max.30	mg/l	APHA 23rd ed: 2017: APHA 5210D	Not Exceed
		6	Dissolved Oxygen	6.6	-	-	mg/l	APHA 21st Ed. 2005 4500O -C	No LOQ
		7	Lead (as Pb) *	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Detected
		8	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461: Part 1/Section 3:2013	Not Detected
		9	Total Kjeldahl Nitrogen (as N)	5,5	-	-	mg/l	APHA 23rd ed: 2017:4500-Norg B	No LOQ
		10	Chemical Oxygen demand (COD)	16	-	-	mg/l	APHA 23ed: 2017:5220. D	No LOQ

		11	Chloride [as Cl- ]*	2.6	-	-	mg/l	APHA 23rd ed:2017;4500 Cl- B	No LOQ
		12	Zinc[as Zn]	0.004	-	-	mg/l	APHA 23rd ed:2017;3125 B	No LOQ
		13	Total Coliform*	Not Detected	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Not Detected
		14	Total Phosphates	Not Detected	0.05		mg/l	APHA 23rd ed :2017:4500 P-C	Not Exceed
BA05	Up Stream (near water stream of the beginning of Naungamuwa Road)	1	pH at 25°C*	7.5	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max. 10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	5	-	max.50	mg/l	APHA 23rd ed: 2017 :APHA 2540D	Not Exceed
		4	Electrical Conductivity*	281	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	No LOQ
		5	Biological Oxygen Demand (BOD5) @ 20°C*	Not Detected	5	Max.30	mg/l	APHA 23rd ed: 2017 : APHA 5210D	Not Exceed
		6	Dissolved Oxygen	6.4	-	-	mg/l	APHA 21 st Ed. 2005 4500O -C	
		7	Lead (as Pb)*	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	8	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Detected

		9	Total Kjeldahl Nitrogen (as N)	2.6	-	-	mg/l	APHA 23rd ed :2017:4500-Norg B	
		10	Chemical Oxygen demand (COD)	5	-	-	mg/l	APHA 23ed:2017:5220.D	
		11	Chloride [as Cl- ]*	18.6	-	-	mg/l	APHA 23rd ed:2017;4500 Cl- B	
		12	Zinc [as Zn]	Not Detected	0.001	-	mg/l	APHA 23rd ed:2017;3125 B	No LOQ
		13	Total Coliform*	80	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Detected
		14	Total Phosphates	Not Detected	0.05	-	mg/l	APHA 23rd ed :2017:4500 P-C	Not Exceed
BA06	Canal Chainage 17+860, Road ID 081 GPS Coordinates Latitude N:6.9619 Longitude E:81.0795	1	pH at 25°C*	7.7	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	No LOQ
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	6	-	max 50	mg/l	APHA 23rd ed: 2017 :APHA 2540D	No LOQ
		4	Electrical Conductivity*	132	-		µS/cm	APHA 23rd ed: 2017; 2510 B	No LOQ
		5	Biological Oxygen Demand (BOD5) @ 20°C*	5	5	Max 30	mg/l	APHA 23rd ed: 2017 : APHA 5210D	Not Exceed
		6	Dissolved Oxygen	6.6	-	-	mg/l	APHA 21 st Ed. 2005 4500O -C	No LOQ

		7	Lead (as Pb)*	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Not Detected
BA06	Canal Chainage 17+860, Road ID 081 GPS Coordinates Latitude N:6.9619 Longitude E:81.0795	1	pH at 25°C*	7.7	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	6	-	Max.50	mg/l	APHA 23rd ed: 2017 :APHA 2540D	Not Exceed
		4	Electrical Conductivity*	132	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	No LOQ
		5	Biological Oxygen Demand (BOD5) @ 20°C*	Not Detected	5	Max.30	mg/l	APHA 23rd ed: 2017 : APHA 5210D	Not Exceed
		6	Dissolved Oxygen	6.6	-	-	mg/l	APHA 21 st Ed. 2005 4500O -C	
		7	Lead (as Pb)*	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	50	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Detected
BA07	Surface Water UBA 391 Mahathenna bypass road. 0+385 RHS	1	pH at 25°C*	7.1	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max. 10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed

		3	Total Suspended Solids (TSS)*	2	-	max 50	mg/l	APHA 23rd ed: 2017 :APHA 2540D	Not Exceed
		4	Electrical Conductivity*	40.4	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	No LOQ
		5	Biological Oxygen Demand (BOD5) @ 20°C*	Not Detected	5	Max. 30	mg/l	APHA 23rd ed: 2017 : APHA 5210D	Not Exceed
		6	Dissolved Oxygen	6.4	-	-	mg/l	APHA 21 st Ed. 2005 4500O -C	No LOQ
		7	Lead (as Pb)*	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Not Detected
BA08	WaterStream Nearby 2nd Post of the Punagala Koslanda Road	1	pH at 25°C*	7.2	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	8	-	Max.50	mg/l	APHA 23rd ed: 2017 :APHA 2540D	Not Exceed
		4	Electrical Conductivity*	44.7	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	
		5	Biological Oxygen Demand (BOD5) @ 20°C*	Not Detected	5	Max.50	mg/l	APHA 23rd ed: 2017 : APHA 5210D	Not Exceed
		6	Dissolved Oxygen	6.6	-	-	mg/l	APHA 21 st Ed. 2005 4500O -C	No LOQ

		7	Lead (as Pb)*	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Not Detected
MO02	G lone Road, NWSDB Water tretment Plant Upper Stream Intake	1	pH at 25°C*	8.32	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	10	-	Max.50	mg/l	APHA 23rd ed: 2017 :APHA 2540D	Not Exceed
		4	Electrical Conductivity*	42.6	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	
		5	Biological Oxygen Demand (BOD5) @ 20°C*	0.46	5	Max.50	mg/l	APHA 23rd ed: 2017 : APHA 5210D	Not Exceed
		6	Lead (as Pb)*	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		7	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Not Detected
	G lone Road, NWSDB Water tretment Plant Down Stream Intake	1	pH at 25°C*	7.91	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	6	-	Max.50	mg/l	APHA 23rd ed: 2017 :APHA 2540D	Not Exceed



		4	Electrical Conductivity*	32.5	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	
		5	Biological Oxygen Demand (BOD5) @ 20°C*	0.36	5	Max.50	mg/l	APHA 23rd ed: 2017 : APHA 5210D	Not Exceed
		6	Lead (as Pb)*	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		7	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Not Detected
MO03	Surface UMO 70 CH O + 46t RHS point	1	pH at 25°C*	8.1	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	21	-	Max.50	mg/l	APHA 23rd ed: 2017 :APHA 2540D	Not Exceed
		4	Electrical Conductivity*	325	-	-	µS/cm	APHA 23rd ed: 2017; 2510 B	
		5	Biological Oxygen Demand (BOD5) @ 20°C*	10	5	Max.50	mg/l	APHA 23rd ed: 2017 : APHA 5210D	Not Exceed
		6	Dissolved Oxygen	5.2	-	-	mg/l	APHA 21 st Ed. 2005 4500O -C	
		7	Lead (as Pb)*	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Not Detected

MO04	Minindorukolaniya Tank at ch07t061(LHS) in Road 121 i	1	pH at 25°C*	8.1	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	0.3	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	15	-	Max.50	mg/l	APHA 23rd ed: 2017 :APHA 2540D	Not Exceed
		4	Electrical Conductivity*	400	-	-	μS/cm	APHA 23rd ed: 2017; 2510 B	No LOQ
		5	Biological Oxygen Demand (BOD5) @ 20°C*	Not Detected	5	Max.50	mg/l	APHA 23rd ed: 2017 : APHA 5210D	Not Exceed
		6	Dissolved Oxygen	5.8	-	-	mg/l	APHA 21 st Ed. 2005 4500O -C	
		7	Lead (as Pb)*	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	Not Detected	-	-	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Not Detected
MO07	Hadaoya Water stream	1	pH at 25°C*	7.3	-	6.0 - 8.5	-	APHA 23rd ed: 2017 :4500H+	Within the Range
		2	Oil & Grease *	Not Detected	2	Max.10	mg/l	APHA 23rd ed: 2017 :5520B	Not Exceed
		3	Total Suspended Solids (TSS)*	7	-	Max.50	mg/l	APHA 23rd ed: 2017 :APHA 2540D	Not Exceed
		4	Electrical Conductivity*	193	-	-	μS/cm	APHA 23rd ed: 2017; 2510 B	

		5	Biological Oxygen Demand (BOD5) @ 20°C*	Not Detected	5	Max.50	mg/l	APHA 23rd ed: 2017 : APHA 5210D	Not Exceed
		6	Dissolved Oxygen	6.8	-	-	mg/l	APHA 21 st Ed. 2005 4500O -C	
		7	Lead (as Pb)*	Not Detected	0.001	-	mg/l	APHA 23rd ed: 2017: 3125 B	Not Exceed
		8	Escherichia coli*	Not Detected	-	0	MPN / 100ml	SLS 1461:Part 1/Section 3:2013	Not Detected

Table 45 - Details of Environmental Baseline Data Collection and Locations (Noise level)

package	Location	GPS Coordination	noise level measurements						Maximum Permissible Noise Levels at Boundaries in LAeq'T		Conclusion
			Morning 6.00 a.m. -12.00 a.m.		Evening (12.00 p.m. - 6.00 pm		Night time 8.40 p.m. -9.40 p.m.		Day time	Night time	
			Ambient Noise Level LAeq(T) dB	Background Noise level L90, A(T) dB	Ambient Noise Level LAeq(T) dB	Background Noise level L90, A(T) dB	Ambient Noise Level LAeq(T) dB	Background Noise level L90, A(T) dB			
BA01	Mahiyanganaya, UBA 004(1+660)	Latitude: 7.2857500 N Longitude: 81.0219400 E	58	46	57	46	53	40	75	50	The measured Noise levels BA01 were within the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
BA02	Concrete batching plant-16th Mile Post, Meegahakivula	Latitude: 7.147998 N Longitude: 81.055878 E	67.7	43	68.8	46.1	67.2	47	75	50	The measured night time Noise levels BA02 were exceed the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
BA03	UBA 099- Keppetipola road to Wimaladarma road (Near the Cancer hospital Badulla)	Latitude: 6.991667 N Longitude: 81.050997 E	62.4	43	62.9	41.8	61.7	44.7	75	50	The measured night time Noise levels BA03 were exceed the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka

BA04	Open Area closer to factory, Hali-ela,	Latitude: 6.9438893 N Longitude: 81.033524 E	54	39	51	35	51	33	75	50	The measured Noise levels BA04 were within the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
BA05	Bridge near the beginning of Nadungamuwa road	Latitude: 6.904100 N Longitude: 80.909356 E	77	57	51	35	51	33	75	50	The measured Noise levels BA05 were within the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
BA06	0+0.000 of Road Id-084 [Starting point of Road ID 084 (5th Kilometer post of EllaPassara Road)]	Latitude: 6.871751 N Longitude: 81.075089 E	61.5	32.8	62.7	30.6	54.1	33.4	75	50	The measured Noise levels BA06 were within the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
BA07	Near Maliththa Centralcollege 242,8+570	Latitude: 6.889443 N Longitude: 80.987903 E	65.5	41.9	68.9	44.7	63.9	43.7	75	50	The measured night time Noise levels BA07 were exceed the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
BA08	Koslanda,Poonagala Road. 0+000	Latitude: 6.743386 N Longitude: 81.018122 E	67	60	67	56	51	42	75	50	The measured Noise levels BA08 were within the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
MO01	Namunukuala – Near Post office	Latitude: 6.875912 N Longitude: 81.113067 E	68	56	67	54	60	36	75	50	The measured night time Noise levels MO01 were exceed the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka

MO02	116, Nearby Sirigala Hospital to Magandanamulla Road. 0+000	Latitude: 6.89317768 N Longitude: 81.3415625 E	62	51	62	53	60	42	75	50	The measured night time Noise levels MO02 were exceed the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
MO03	In front of MO/ Indikolapelessa Primary School, Sewanagala	Latitude: 6.364417 N Longitude: 80.935092 E	59	40	56	45	45	32	75	50	The measured Noise levels MO03 were within the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
MO04	Buttala Badalkubura road, Near Dutugamunu Maha Vidyalaya	Latitude: 6.761393 N Longitude: 81.247440 E	68	49	68	47	65	43	75	50	The measured night time Noise levels MO04 were exceed the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
MO06	Etiliwewa Junction. Road ID: UMO 20	Latitude: 6.623051 N Longitude: 81.125327 E	70	58	71	58	66	54	75	50	The measured night time Noise levels MO06 were exceed the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka
MO07	9 Mile Post, Buddama Road, Siyabalanduwa	Latitude: 7.031761 N Longitude: 81.524113 E	62	42	62	49	60	42	75	50	The measured night time Noise levels MO07 were exceed the permissible level of the stipulated by the Central Environmental Authority of Sri Lanka



Figure 13 - Night time noise level data collection MO06 package at Athiliwewa



Figure 14 - Air quality testing BA08 package at Koslanda



Figure 15 - Day time noise level data collection BA08 package at Koslanda



Figure 16 - Water quality testing MO04 at UMO055 road



#### 4.10 Establishment of Public Awareness Mechanism and Grievances Redress Mechanism (GRM)

44. Communications between the implementing agency, implementing consultant, and other stakeholders such as government agencies, community of the area, local authorities, etc. were identified as a key component of the social and environmental safeguard during the project design stage, construction stage, and maintenance stage.

45. Public awareness mechanism established by the project implementing agency and project implementing consultants according to the RF and EARF. Public awareness was created through discussions, notices, complaint boxes, GRCs and public meetings, and public consultations.



Figure 18 - Discussion with Water Board at Jiloan road MO02 package



Figure 17 - Public discussion in UMO077, MO07 package

##### 4.10.1 Public awareness

46. The public awareness meeting was conducted by the PIU and PIC06 with ADB TA Consultant (Mr. Saranga Gajasinghe) at Bandarawela Divisional Secretary's Office on 27/08/2019 to aware the public, regarding delay of construction progress of BA07 package due to Contractor's poor cash flow. Further, PIU arranged DS level GRCs to aware the public regarding the delay progress and utility shifting specially community water supply systems.



Figure 20 - Public Consultation programme with public, Contractor, PIU and PIC06 at MO02 package



Figure 20 - Public Consultation programme with public, PRDD, PIU and PIC06 at BA01 package





Figure 21 - DS level GRC meeting at Bandarawela DS Office, awareness programme for poor progress UBA242 road on 27/08/2019

47. Public notices developed in local languages (Sinhala and Tamil) were displayed at community-attracted places in the project area. The main purpose of the notice was to create awareness among communities on the project, understand to how best the community can involve in project activities and how to make complains, suggestions, grievances and requests to the project. The public notice brought the key information about the project and contact numbers of relevant officers of the project whom to be contacted regarding social and environment issues.

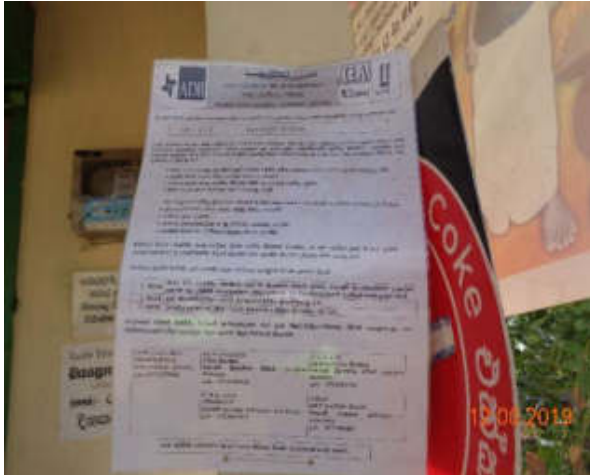


Figure 23 - Notice published at BA03 Package



Figure 23 - Complaint box placed at BA01 Package

#### 4.10.2 Channels of receiving public Grievances

48. A system of channels has been established to receive public suggestions, requests, complaints and grievances by the project. The public was clearly informed that they could follow any of the following channels in submitting their grievance to the project.



Figure 25 - Public awareness were conducted during the DS level GRC, Katharagama– MO04 Package



Figure 25 - Public awareness were conducted during the GND level GRC, UBA310– BA05 Package

#### 4.10.3 Complaints & suggestion

49. Availability of complain & suggestion box at the site has been identified as one of the effective methods to share views of communities prior to the designing stage. Complaint & suggestion boxes were installed at Contractor's site offices in all Contract packages and public are expected to put their written grievances in to the Complaint & Suggestion box. Complaints and suggestions will be collected from the box at the end of each day. Contractors are maintaining public complaint, request and suggestions registers at Contractor's Office, every Monthly Progress Review Meetings complaint register are reviewed by Project Director and Team Leader with SGRS and ES. (Refer Annexure 9 - Sample complaint registry, MO03)

Table 46 – Grievances Summary Table

Package	June 2018 - December 2019					
	No. Request	Resolved	No. Suggestion	Resolved	No. Complaints	Resolved
BA01	19	19	0	0	3	3
BA02	56	16	0	0	8	1
BA03	22	11	1	0	6	2
BA04	58	16	2	2	16	7
BA05	34	33	2	2	3	2
BA06	41	25	0	0	3	3
BA07	33	12	2	2	9	4
BA08	23	18	0	0	4	3
MO01	44	32	0	0	9	4
MO02	109	104	0	0	8	0
MO03	76	55	1	1	6	2
MO04	24	19	0	0	3	2
MO05	56	40	4	4	12	7
MO06	28	27	0	0	3	0
MO07	40	26	0	0	12	12
<b>Total</b>	<b>663</b>	<b>453</b>	<b>12</b>	<b>11</b>	<b>105</b>	<b>52</b>

#### 4.10.4 Office of the Divisional Secretary

50. Divisional Secretary (DS) is the Government administrative officer at Divisional Level. DS also plays the role of chairperson of Grievance Redress Committee (GRC) established under the project at Divisional Secretary level. A public notice also displayed at each GND offices in the project area.

51. DS level second GRCs will call to resolve public grievances which are cannot resolve in the GND level GRCs.

52. In addition to the above channels, all the field staff of the project are instructed to accept public grievances and hand them over to the Project Engineer (PE), Senior Environment Officer (SEO), Social Safeguard Officer (SSO) on the same day or in failing which the following day for further action.

#### 4.10.5 Office of Grama Niladari (GN)

53. Grama Niladari is the Government Administrative Officer at Grama Niladari Division (GND). GN also plays the role of the Chairman of the Grievance Redress Committee (GRC) established under the project at GND level. A public notice also displayed at each GND offices in the project area.

#### 4.11 Consultation, Information Disclosure and Grievance Redress Mechanism

54. The public consultation and information disclosure are an important part of the environmental safeguard requirements under ADB SPS (2009). In addition, the NEA of GoSL also considers stakeholder engagement as a key element for successful management of environmental impacts.

55. Meaningful public consultations held early on and continuously throughout the project development stage to allow the incorporation of relevant views of the stakeholders in the final project road design, mitigation measures, implementation issues, and enhance the distribution of benefits. Stakeholders included project beneficiaries, local affected people, government bodies, and non-governmental organizations. The consultations must encourage participation of women and vulnerable groups (Handicapped people, senior citizens, schoolchildren) and engage as many stakeholders as possible.

56. MO03 package was requested to develop UMO138 road as two lane road by the public and authorities in the GRC meeting. Contractor designed to widen the road from Ch. 0+000 to 1+600, design was approved by the PIC06 and Contractor complete the Asphalt paving. Figure 26 explain the existing condition and the present condition of the road. (Refer Annexure No 10 - Public request for widen the road as two lane from 0 point to Somadevi School)



Figure 26 - MO03 UMO138 Road widen up to two lanes due to request of public of the area, the request raised in the GRC (Left hand side photo represent the existing condition and right hand side photo represent the condition after construction)

##### 4.11.1 Grievance Redress Mechanism

57. Grievance Redress Mechanism (GRM) is an arrangement for receiving, evaluating and facilitating the resolution of affected person's requests, complaints, suggestions and grievances on social and environmental performances of the project. Affected persons need a trusted way to voice and resolve project related concerns.

58. Grievance Redress Committees (GRCs) are being established at all GNDs in the project area with the objective of finding solutions for the grievances. Similarly, DSD level GRCs are also being formed to address grievances which cannot be solved in GND GRC.

59. Composition of GND level GRC members were Grama Niladari of the area (Chairman), Representative of PIU (Secretary), Representative of Supervision Consultant (Member), Representative of Contractor (Member), A community member/religious leader (Member), and Woman representative from the local community (Member).

60. Composition of DSD Level GRC members are Divisional Secretary of the area (Chairman), Representative of PIU (Secretary), Grama Niladari (Member), Representative of Supervision Consultant (Member), Representative of Contractor (Member), Representative of a social organization (NGO/CBO) of the area (Member), a community member/religious leader (Member) and Woman representative from the local community (Member).

61. To make the GRM process gender responsive the GRC include at least one female member to represent the local community women. Further, when grievances or complaints submitted to the GRC, female complainers treated equally and necessary measures are taken to address the grievance in the best way possible.

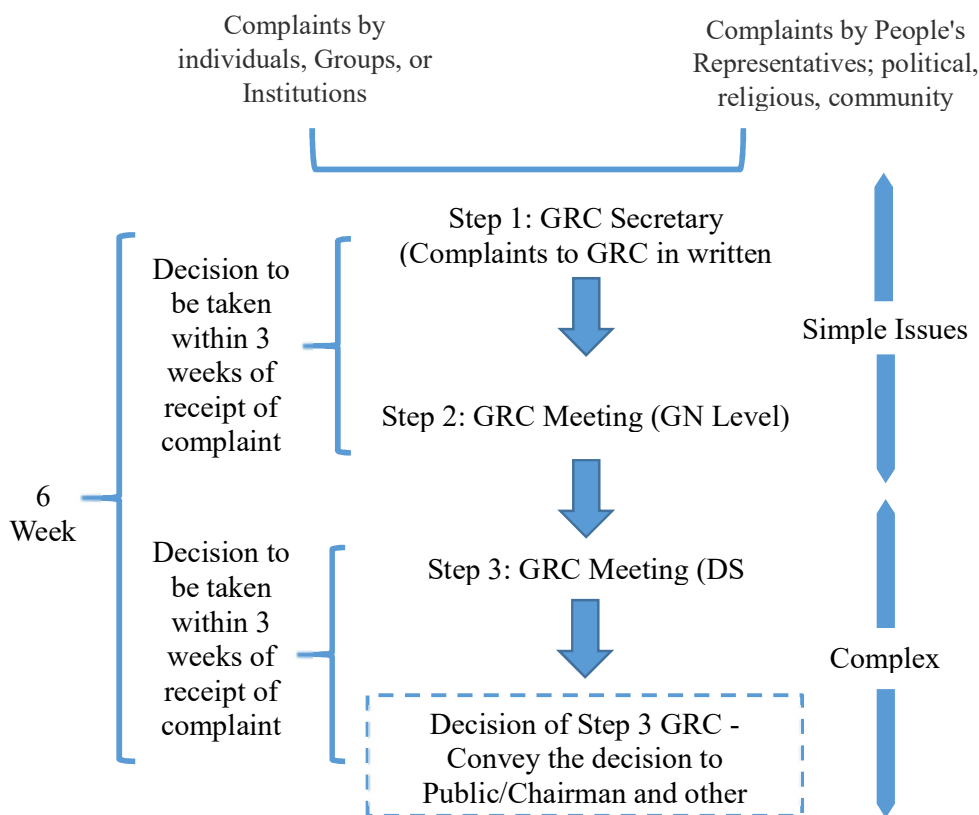


Figure 27 - The flow chart shows of the GRM process adapted in to the iRoad (UVA)



## 4.12 Maintenance of Records for Public Grievances

62. Maintenance of relevant records considered as a prime requirement. All the received complaints/suggestions are registered at the Project Manager's office of the Contractors.

63. It was evident that this mechanism was very effective and shown better results. All the grievances received were classified according to the nature.

64. Grievances from the affected people on social and environmental issues during project implementation addressed mainly through the existing local administrative system. Depending on the nature and significance of the grievances or complaints, grievances addressed at three levels. The first is at the grass roots level where complaints are directly received and addressed by the contractor, PIC06 or PIU representative on site.

65. Up to 31<sup>st</sup> December 2019, 362 GRCs formed in GN level and 38 GRCs formed in DS level. 122 GN level GRCs to be formed.

66. Grievances, which were simple but still, cannot be addressed at the grass roots level addressed at the GND level. More complex grievances, which cannot be addressed at the GND level, addressed at the DSD level.



Figure 29 - GRC formation in GN Level – MO01 Package



Figure 29 - GRC formation in GN Level – BA04 Package

Table 47 - Establishment of Grievance Redress Committees (GRCs) at Divisional Secretariat & Grama Niladhari Division Levels (Up to 31st of December 2019)

District	Package	Total No. of DSs	DS level		Total No. of GNDs	GND level	
			Established	To be established		Established	To be established
Badulla	BA01	2	2	0	27	27	0
	BA02	3	3	0	34	25	9
	BA03	3	3	0	52	23	29
	BA04	1	1	0	36	35	1
	BA05	2	2	0	50	39	11
	BA06	2	2	0	38	20	18
	BA07	2	2	0	42	15	27
	BA08	2	2	0	20	10	10
Sub Total		17	17	0	299	194	105
District	Package	Total No. of DSs	DS level		Total No. of GNDs	GND level	
			Established	To be established		Established	To be Established
Monaragala	MO01	3	3	0	28	22	6
	MO02	4	4	0	29	29	0
	MO03	2	2	0	25	20	1*
	MO04	4	4	0	20	20	0
	MO05	3	3	0	30	24	4*
	MO06	3	3	0	32	26	6
	MO07	2	2	0	27	27	0
Sub Total		21	21	0	191	168	17
Grand Total		38	38	0	490	362	122
Percentage		NA	100%	0%	NA	75%	25%

#### 4.13 Environmental Monitoring Structure and Site Inspections

67. Senior Social Safeguard Officer, Social Safeguard Officer, and Senior Environmental Officer of PIU, Environmental Specialist, SGR Specialist, Environmental and Social Safeguard Officers of PIC06 and Environmental and Social Safeguard Officers and Safety Officers from contractors have conducted periodic site inspections, consultations, and public awareness in each contract package.

68. Senior Social Safeguard Officer, Social Safeguard Officer, and Senior Environmental Officer of PIU conducted stakeholder awareness and regular inspections in each contract package. Environmental Specialist and SGR Specialist of PIC06 assisted the PIU staff.

69. To ensure the application of SSEMAP and EMC on site and observe the compliance of environmental and social safeguards, field level ESSOs will conduct daily inspections.

70. Environmental Specialist PIC06 has prepared a joint inspection sheet related to the pay item 108.1(4). Field level ESOs PIC06 allocated to the all RE Offices are conducting weekly joint inspections with Contractor's ESOs. Based on the joint inspection sheet Contractors claim the pay item 108.1(4). (Refer Annexure No 11 - Sample Joint Inspection Sheet.)

#### 4.14 Environment safeguard Compliance at Road handing over

71. MO02 Contract package handed over UMO048 (Kappetipola lane) road to the employer and road owner (PS). PIU and PIC06 conducted several joint inspections with Contractor before handover the road, environmental and social safeguard completions were monitored during the inspections. Contractor prepared Environmental and Social Safeguard Reports, accepted by PIC06 before road taking over.

72. Team Leader PIC06 instructed to all Contractors in writing, Contractors must submit safeguard completion reports along with the handing over notice. ES an SGRS aware all Contractor's ESOs to prepare safeguard completion reports at the workshop conducted on 4<sup>th</sup> November 2019 and 5<sup>th</sup> November 2019.



Figure 31 – UMO048 road after construction completed



Figure 30 – Joint inspection before road handing over on UMO048



Figure 32 - UMO110 (MO01 Package) Road Inspection conducted by PIU, PIC06, and Contractor. Project Director discuss with public regarding disposal yard request by youth society of the area.



Figure 33 - UMO059 (MO04 package) Team Leader inspected material stockpile yard during monthly site inspection, January 2019.



## 5.0 Issues Observed and Status of Compliance

Table 48 - Issues observed and mitigated BA01

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Excavation and clearing and grubbing	Soil erosion, sedimentation, Dust generation, water pollution, siltation beyond the ROW Accumulation of debris in road side	Specially UBA011 UBA005 UBA248	All debris is disposed in approved dumping yard as soon as possible	Use of approved disposal yards for this purpose.	No soil stockpiles appear on the sides of the road	Daily monitoring	
Edge widening and back filling	Soil erosion, sedimentation, water pollution, siltation beyond the ROW	Specially UBA002	All debris is disposed in approved dumping yard as soon as possible. Proper compaction Avoid the siltation using silt trap	Keep these storages on paved surface without contamination environment and surface runoff water. Proper drainage facilities shall be established to the construction sites, stock piling yards dumping yards to drain water to the law laying areas with silt traps (catch pit). Use erosion control measures to the particular locations (ex: planting deep rooted shrubs and grasses, turfing, and erecting toe walls, etc.)	No public complains and visual observation	Daily monitoring	

Table 49 - Issues observed and mitigated BA02

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Road way excavation, Clearing and grubbing	Due to rainy season landslides may occur.	UBA129 UBA250 UBA233 UBA008 UBA129 UBA131	Selecting suitable places for disposal and storing and got relevant authorities' approval.  Make sure not to seepage to the nearby water ways and demarcate.	Avoid soft rock excavation during the rainy weather	Demarcation of the respective areas.	Advised to establish toe wall using boulders and demarcation by barricade tapes.	Contractor has submitted the details relevant yards and the restoration plan.
	Unauthorized soil dumping along the roads.			All efforts to minimize the use of temporary lands and sensitive areas	Establishment of boulders to the toe wall.	Remove all the unauthorized soil dump and clean the road sides.	
	Environmental Impacts due to the disposal and stock pole yards.					For temporary yards, authorized approvals from relevant owners and relevant authorities to be taken	
Road side vegetation clearing	Impact on biodiversity.	UBA250 UBA069	Minimized of clearing vegetation, proposed environmentally friendly designs.	Avoid the removal of religious, cultural, indigenous, aesthetically important trees and rare species. Tree replantation by 1:3 ration for the removed trees	Getting permissions from Local Authorities.	Getting permissions from Local Authorities.	Contactors have given information to PIC regarding important fauna and flora locations and protected such areas as much as possible.
	Soil erosion due to removing of vegetation	UBA233 UBA129 UBA181 UBA131				Demarcating all the approved trees to be cut.	

Culvert construction	Blocking of drainages.	UBA250	Temporary drainage has been established	To clear blocked drainages	No water stagnation and effective water flow through drains.	Advised to establish temporary drainages and clear leader ways	Minimize the water flow through causeway
Material Transportation	-	UBA250 UBA233 UBA008 UBA129 UBA069 UBA131	Materials transportation by covering materials	Materials should be properly covered during transport. Loading materials quantity should not exceed the carrying capacity of trucks.	Due to the rain soil erosion siltation observed in downstream for roadway excavation.	Advised to cover materials to avoid spillages.	Minimize the soil spillage in road ways.
Soil erosion and sedimentation on lowland	Soil water contamination, Potential landslide, Soil erosion, Impact to ground water sources, Sedimentation on lowlands and farm lands	UBA250 UBA233 UBA295 UBA008 UBA129 UBA069 UBA131	Obtain approval from relevant owners & relevant authorities. Establish a toe wall to the slope land demarcation for each and every pile.	Use measures for erosion control at the respective disposal sites and stock piles	Establish a toe wall using boulders.  Demarcation of the respective areas.	Advised to plant deeply rooted shrubs and grasses, turffing, erecting toe walls, live fence etc.)	Contractor has submitted the details relevant yards and the restoration plan.

Table 50 - Issues observed and mitigated BA03

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
ABC Laying, Priming, Culvert Construction	Safety hazards which can be occurred due to lack of using Personal Protective Equipment.	UBA240 UBA074 UBA098 UBA040 UBA 026 UBA356	Instructed to use appropriate PPE by conducting Tool Box meetings & instructing at site.	Use of relevant & appropriate PPEs in construction works.	Conducting Tool Box Meetings and site inspections.	Adhere to use relevant PPE for relevant works.	Most of the workers are concerned about their safety & using appropriate PPEs.
Culvert excavations	Safety hazards that can be occurred due to culvert excavations & edge widening locations.	UBA356 UBA240 UBA301	Barricading & arrangement of safety sign boards in both culvert excavations & edge widening locations.  Providing ladders to access the pit and exit from the pit.  Night safety arrangements are also established for such locations using night lamps & Luminous Stickers	Establish safety sign boards in such locations & maintain adequate safety arrangements using barricades.	Site inspections for monitoring safety arrangements at site.	To maintain appropriate safety arrangements for such locations & look on to pedestrian safety in such locations.	All the culverts and edge widening locations are provided with adequate safety arrangements. A separate foot path for pedestrians in culvert excavation locations will be demarcated by barricades.
Unexpected earth slip events due to adverse weather condition.	Blocking of road sides. Blocking of drainage paths	UBA081 UBA088 UBA055 UBA258	Immediate removal of debris in the road sides if possible.  Barricading and applying adequate safety arrangements if the debris removal is impossible.	Removal of debris from the earth slips as soon as possible.  Clearing of blocked drains to avoid further harms from the earth slips.	Cleared drains at site.  Appropriate safety arrangements for the relevant locations.	To minimize the excavation works at rainy seasons as this project area is highly sensitive for earth slips.  To provide safety precautions for those locations to minimize the risk.	Removal of trees which are increasing the probability of earth slips.

ABC & soil stock piles along the road edges.	Safety hazards that can be caused for vehicles as well as pedestrians.	UBA074 UBA356 UBA240 UBA098 UBA040 UBA301	<p>Barricading of these stocks piles &amp; use these materials without keeping them for a long time.</p> <p>Stock these materials beyond the asphalt edge of the road &amp; these materials will be stocked where there is adequate space for vehicle movements.</p>	Stock piling will be done in approved stock yards.	Site inspections.	<p>Avoid long term stock piling of materials and immediate use of these materials without making disturbances for vehicle movements and pedestrians.</p> <p>Short term stock piling of materials along road edges where there is adequate space for vehicles and pedestrians as there is no any approved stock yard up to 99km.</p> <p>Stock piling should be done beyond the asphalt edge &amp; barricading of the piles.</p>	<p>Stocked materials were used immediately without keeping them long time.</p> <p>Short term stock piles were barricaded.</p>
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Table 51 - Issues observed and mitigated BA04

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Road Way Excavation	Slippery road surface	All roads, construction work on going	Blockage drainage were cleared properly	Properly clear drainage systems.	No any complain from low land people No accidents	Properly clear drainage systems. Remove the contaminated soil and arrange warning signs.	No any contamination of the nearby waterways.
	Safety hazard to the public	All roads, construction work on going	Barricading & arrangement of safety sign boards in culvert and drain excavated locations at day and night.	Establish safety sign boards in such locations & maintain adequate safety arrangements using barricades	No accidents are occurred. Maintaining the accident record book.	To implement hard barricades at Excavated locations.	All the culverts and edge widening locations are provided with adequate safety arrangements.
Disposal of debris and unsuitable soil	Soil erosion	All roads, construction work on going	Toe wall was constructed using rocks order to prevent soil erosion.	Construction of a toe wall. Turfig.	No any complaints from the down streams people Visual observations	Use erosion control measures to the particular locations (ex: planting deep rooted shrubs and grasses, turfig, and erecting toe walls, etc.) Proper drainage facilities shall be established to the construction sites	No any contamination of the nearby waterways.

Table 52 - Issues observed and mitigated BA05

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Initial Road Maintenance, Site clearing Roadway Excavation	Soil Erosion, Sedimentation. Record first aid cases at Site	UBA198 UBA362 UBA314 UBA361 UBA336 UBA310 UBA063	Minimize the vegetation clearing and prevent soil erosion as per the approval of PIC06 Provide adequate PPE for labours and site staff	Removal of debris by manual. Aware the importance of PPE and provide adequate PPE for site staff and labours	No any Complaints about soil erosion and earth slips.  Reduce number of accidents at Site.	Daily monitoring of environmental sensitive sites. Daily monitoring wearing provided PPE by labours and Site staff	Locations identified for replanting.  Minimize number of accidents at site and ensure the safety of labours and site staff.
Culvert construction, Drain Construction Edge Widening Shoulder construction	Soil erosion and muddy conditions Water stagnation, Disruption of public transportation, Safety Issues Removable of debris	UBA361 UBA362 UBA336 UBA310 UBA314 UBA116 UBA204 UBA198 UBA063	Facilitate proper drainage paths and culvert leader ways. Removal of debris by manual. Provide proper safety sign boards and safety arrangements. Always use approved disposal yards for debris.	Clean existing drain paths and culvert leader ways. Removal of debris by manual. Notice road closure before one week to the public. Minimize temporary use lands Getting approvals from owners and relevant authorities for temporary use lands. Temporary use lands should not be situated in environmental sensitivity areas.	No any complains about Sedimentation and Soil erosion.	Daily monitoring of environmental sensitive sites. Daily monitoring safety arrangements at the construction site.	Contactors have given information to PIC, PIU regarding period of road closures.

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Asphalt Layering	Exposed to high temperature (Workers, vegetation, etc.) Disruption of public transportation	UBA314 UBA362	Aware labours and site staff. Provide adequate PPE for Labours and encourage to wearing PPE at site. Provide proper safety sign boards and safety arrangements. Provide alternative access for the public.	If there any tea plantation or cultural valuable plants before asphaltting cover these plants. Notice road closure before one week to the public	No any accidents related to asphaltting works. No any complaint about disruption of public transportation	Provide byroads for public transportation during the period of Asphalt layering.	Contactors have given information to PIC, PIU regarding period of road closures.



Table 53 - Issues observed and mitigated BA06

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Disposal of debris and unsuitable soil from construction activities.	Collapsing of the edge of the disposal yard.  Silt contamination with water.	UBA081 Ch.01+650 (LHS)  UBA055 Ch.00+630 (LHS)  UBA055 Ch.01+980 (LHS)	A toe wall has created.  The edge is going to be cut in a rip rap manner in order to minimize the possibility for collapsing.	Construction of a toe wall.  Adopting mitigatory measures as per the site conditions.	Zero availability of collapsed soil in the down side of the disposal yard.	Instructed to expedite the cutting of edge of the disposal yard in the rip rap manner. (Although due to the heavy rainy conditions it was unable to arrange an excavator for this purpose)  Providing of silt screens to avoid the silt contamination with water bodies.	All those disposal yards were rehabilitated.

Table 54 - Issues observed and mitigated BA07

Constructi on Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Roadway excavation and edge widening	Risk of motor accidents and difficulties faced by the pedestrians due to slippery condition of the roads.	UBA242	Unsuitable soil (mud) was removed.  Signboards were displayed at the necessary areas.	Unsuitable soil (mud) was removed.  Signboards were displayed at the necessary areas.	Counting no of accidents due to slippery conditions.	Unsuitable soil (mud) was removed.  Signboards to be displayed at the necessary areas.	No accidents reported.
	Soil erosion, breeding of insects due to water stagnation	UBA242 UBA223	Drain paths were cleared.  Backfilling was done in necessary areas.	Clearing the drain paths.	Water stagnated areas in the construction area.	Clearing the drain paths and leader ways.	Less insect breeding efficiency.  Less water stagnated areas.

Table 55 - Issues observed and mitigated BA08

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Initial Road Maintenance, Site clearing  Roadway Excavation	Soil Erosion, Sedimentation  Record first aid cases at Site	UBA115 UBA312 UBA135 UBA196	Minimize the vegetation clearing and establish soil erosion as per the approval of PIC  Provide adequate PPE for labours and site staff	Removal of debris by manual.  Aware the importance of PPE and provide adequate PPE for site staff and labours	No any Complaints about soil erosion and earth slips.  Reduce number of accidents at Site.	Daily monitoring of environment al sensitive sites.  Daily monitoring wearing provided PPE by labours and Site staff	Locations identified for replanting.  Minimize number of accidents at site and ensure the safety of labours and site staff.
Culvert construction, Drain Construction Edge Widening Shoulder construction	Soil erosion and muddy conditions Water stagnation, Disruption of public transportation , Safety Issues Removable of debris	UBA135 UBA115 UBA077 UBA101 UBA124 UBA162	Facilitate proper drainage paths and culvert leader ways. Removal of debris manually. Provide proper safety sign boards and safety arrangements. Always use approved disposal yards for debris.	Clean existing drain paths and culvert leader ways. Removal of debris by manual. Notice road closure before one week to the public. Minimize temporary use lands Getting approvals from owners and relevant authorities for temporary use lands. Temporary use lands should not be situated in environmental sensitivity areas.	No any complains about Sedimentation and Soil erosion.	Daily monitoring of environment al sensitive sites. Daily monitoring safety arrangements at the construction site.	Contactors have given information to PIC, PIU regarding period of road closures.

ABC layering, Prime works	Disruption of public transportation and Prime Coat wash out to the lowland and contamination with water	UBA135 UBA312	Provide proper safety sign boards and safety arrangements. We consider not to apply prime coat (CSS1) during rain condition. Also prepare proper drainage so that the washing out water will not mix with adjacent water body .	Notice road closure before one week to the public.	No any complains construction related activities. Frequent visual testing on water body	Daily monitoring of environment al sensitive sites. Daily monitoring safety arrangements at the construction site.	Contactors have given information to PIC, PIU regarding period of road closures.
Asphalt Layering	Disruption of public transportation	UBA135 UBA077	provide proper safety sign boards and safety arrangements	Notice road closure before one week to the public	No any complaint about disruption of public transportation	Provide byroads for public transportation during the period of Asphalt layering.	Contactors have given information to PIC, PIU regarding period of road closures.

Table 56 - Issues observed and mitigated MO01

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Roadside vegetation clearing.	Damage and displacement of native flora and fauna.	UMO03 UMO110 UMO028 UMO016	Minimized of clearing vegetation, proposed environment ally friendly designs, planting activities.	Minimize tree removing & replanting trees 1:3 ratio for removing, design changes of the road works.	Trees alongside the road was not damaged due to constructions.	Daily monitoring of environmental sensitive sites, design changes accordance with design engineers and the community representatives.	Contactors have given information to PIC regarding important fauna and flora locations and protected such areas as much as possible. Locations to be identified for replanting
Road Works	Flood impact (Flash runoff can be observed during rainy moments)	UMO108 UMO031 UMO016 UMO028	Provided scupper drains and earth drains to move storm water	Provision of adequate drainage facilities to inundation and flood prone locations  Temporary diversion of water ways during construction should be ensure that no obstruction to natural water flow.  Construction works affecting water bodies should be prevented and work should be scheduled during the dry season.	Locations on site were visually observed and take suitable measures for minimizing impact	Daily monitoring of such flood proven locations and Should be learnt how to adopt to mitigate such flash run off time	Providing scupper drains were most suitable indicator for minimizing storm water issue.

Table 57- Issues observed and mitigated MO02

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Water stagnation and damages observed in a bypass road during the rainy season	Impact to the water ways and effect to the road uses.	UMO144 Ch. 2+780	Necessary measures taken to remove stagnation and opened the culverts	Clear all drainage paths, culverts and leader ways, under the initial maintenance and retain maintenance work	Maintained a road as a motorable condition	Expedite the works  Minimize the excavation during the rainy days	No inconvenience to the road uses
Damage to the completed constructed are closed to the culvert and Sedimentation on and siltation due to the heavy rain	Constructed embankment damage. Drain were blocked due to siltation.	UMO041 Ch. 2+368	De-siltation of drainage paths, culverts  Restoration of damage areas.	Cleaned the drain and clean the road surface.	No storm water blockage at drains and culverts.	Expedite the works  Completed the work with in limited time period.	No inconvenience to the road uses.

Table 58 - Issues observed and mitigated MO03

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Earth works	Changes in the drainage system on the road have caused water related problems	UMO003	Construct temporary drainage system	Clear all drainage paths, culverts and leader ways.	Water stagnation on land	Clear all drainage paths, culverts and leader ways.	Control water borne diseases.
Road way excavation	Accumulation of debris on road sides	UMO146	Dispose all debris in approved dumping yards	Use of approved disposal & Stock yards	Accumulation of debris along the road	Debris dispose only in approved dumping yards	Minimize soil contamination with low land water.

Table 59 - Issues observed and mitigated MO04

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Drain excavation	Drains and culverts are blocked with soil and it caused to water stagnation.	UMO 059 UMO121.i UMO137 UMO120	Clear culverts and drain in rainy season.  Prepared temporality channel for removing rainwater	Existing drains are cleaned after clearing & grubbing. Temporary earth drains are formed as practically as possible until required lined or unlined drains are provided after excavation. Every effort would be made not to disturb prevailing surface water runoff.	Existing drains are cleaned after clearing & grubbing.	Excavation and earth work around vulnerable area for soil erosion, inundation and flood prone mainly restricted to the dry season and removal of green cover vegetation of above location s shall be minimized.	There is no water stagnation.
Culvert excavation.	Disposal along the Row.	UMO 059 UMO121.i UMO137 UMO120	All of site officers inform to avoid made temporary disposal piles.	Only in the areas of work or any other designated areas and not to destroy ground vegetation cover unnecessarily.	Boundary demarcation for selected disposal yard. There are no complains, no erosion issues, no sedimentation in low lands, and no water contamination.	Get approval for disposal piles related authority.	Not remain disposal debris along the construction road.



Table 60 - Issues observed and mitigated MO05

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation measure/s proposed in the SSEMAP	Monitoring indicator	Recommendations by PIC	Effectiveness
Culvert construction	Difficulties on pedestrians	UMO005 UMO039 UMO006 UMO001 UMO038	Preparing pedestrian walking paths	Producing pedestrian paths for pedestrians	Less complains & accidents	Preparing pedestrian walking paths	Decrease risks & difficulties on pedestrians
Whole construction process	Blockage of drains and nearby water sources	Not identified		The waste materials shall be disposed proper way Minimized construction works near such drainage locations during heavy raining season	Less flooding areas	The waste materials shall be disposed proper way Minimized construction works near such drainage locations during heavy raining season	Decrease environmental harm and less land slides
Soil excavation	Soil erosion & Water stagnation	Not identified		Silt traps and boulders for the relevant areas.  Removable of green vegetation cover should be minimized in these places.  Introduce soil stabilization methods for these places.  Clear all drainage paths, culverts and leader ways.	Less flooding areas, water stagnations and land slides	Silt traps and boulders for the relevant areas  Removable of green vegetation cover should be minimized in these places.  Introduce soil stabilization methods for these places.  Clear all drainage paths, culverts and leader ways.	Avoid difficulties on villagers and decrease environmental harm

Table 61 - Issues observed and mitigated MO06

Construction Activity	Impact	Location	Mitigation measure/s adopted	Mitigation Measure/s proposed in the SSEMAP	Monitoring indicator	Recommendation by PIC	Effectiveness
Storage of construction materials	Wash out to nearby water bodies and sediments	UMO019 15+640 RHS	Compaction of all materials and covered the slope are to prevent wash out	1.All temporary materials storage area shall be sufficient away from water bodies and silt traps or erosion control measures shall be applied.	1. Visual observation of sedimentation of soil at surrounding area	1.All temporary materials storage area shall be sufficient away from water bodies and silt traps or erosion control measures shall be applied.	Not visually observed

Table 62 - Issues observed and mitigated MO07

Construction activity	Impact	Location	Mitigation Measure/s Adopted	Mitigation measure/s Proposed in the SSEMAP	Monitoring indicator	Recommendations By PIC	Effectiveness
Transportation of construction material using dump trucks	Public and road users can be affected from spillage and dust emission	UMO057 (0+000 to 7+540)  UMO131 (0+000 to 11.560)  UMO054 (0+000 to 8+050)  UMO092 (0+000 to 4+220)	Cover the canopy of while transportation of construction materials using tarpaulin	All material transporting truck canopy shall be covered using tarpaulin to prevent dust emission Speed limits shall be given to all drivers and strictly advised to adhere them at construction sites	Continue monitoring of observation by	Materials shall be properly covered during transportation and proper storage to ensure protection from dust and other emissions	
Erosion at road side Sedimentation , siltation and soil	Impact to the water ways and vegetation	UMO131 (8+135 to 8+785) RHS	Removed soil from silted area	Use erosion control measures to the particular locations	Continue monitoring of observation by	Expedite the works  Minimize the excavation during the rainy days	No inconvenience to the nearby residents



Figure 34 - Mosquito breeding prevention programme conducted at material stock yard BA01 package



Figure 35 - Toe wall construction with silt screen to prevent soil contamination UBA055, BA06



Figure 36 - Land donation UBA151.ix, BA04 package



Figure 37 - Site safety arrangements BA05 package



Figure 38 - Turfing at UMO003 road, MO03



Figure 39 - Waste management system implemented at main yard BA08





Figure 40 - Female workers are engaged in road works at Ch.0+160 RHS UBA104, BA01



Figure 41 - Erecting a dust screen in front of pre school Ch.2+150 LHS at UMO130, MO07



Figure 42 - Water spraying at construction site UBA105, BA01



Figure 43 - Night safety arrangement for culvert excavation- UMO007, MO06

## 6.0 Programmes and Activities to Enhance Environment

### 6.1 Tree Planting Programmes

73. Tree Planting Programmes will be conducted to mitigate the environmental impacts due to removal of trees during the constructions. Land selections will be carried out by the Contractor with consultations of the PIC06, mainly focused on public places such as schools, libraries and community grounds, etc. Planted trees were maintained by the schoolchildren and the public under the supervision of contractor's Environmental officer. All plants were tagged for monitoring purpose; this was monitored by the PIC06, Environmental Specialist.

74. Tree planting programmes were started in all Contract packages to cover the Contractual requirement stipulated in the EMP of the Contract Document, 1:3 ratio will be maintained in all Contract packages. PIU and PIC06 will be carried out volunteer tree planting programs with the Contractors, in addition to the Contractual requirement to enhance the local environment and mitigate the impact on climatic change due to project activities such as removal of green cover, emissions and etc. (Refer Annexure 12- Tree planting programme proposal, MO03 and Annexure No 13 - Tree planting programme report.)

75. The Contractors used DoFC plant nurseries to purchase saplings for tree planting programmes. MO07, MO05 Contractors maintain own plant nurseries for their re-planting programmes, BA08 and BA06 packages purchase saplings from Haldummulla Herb Garden nursery.

76. Table 63 summarizes the status of tree removal and re-planting for each package.

Table 63 - Status of tree removal and re-planting in each contractor package

Road ID	of Trees Removed (Cumulative)	Total number of Plants to be planted	Number of plants planted	Balanced to be planted
BA 1	28	84	80	4
BA 2	125	375	400	(25)
BA 3	25	75	100	(25)
BA 4	201	603	290	313
BA 5	36	108	150	(42)
BA 6	76	228	100	128
BA 7	171	513	215	298
BA 8	36	108	130	(22)
MO 1	98	294	236	58
MO 2	295	885	681	204
MO 3	3	9	70	(61)
MO 4	19	57	80	(23)
MO 5	1	3	4	(1)
MO 6	13	39	92	(53)
MO 7	11	33	33	0
<b>Total</b>	<b>1138</b>	<b>3414</b>	<b>2661</b>	<b>753</b>



Figure 44 - Tree planting programme at Meegahakiula National Collage, BA02



Figure 45 - Tree planting programme with local households at 3+261 LHS UMO094, MO02



Figure 46 - Tree planting programme at Saripuththa Maha Vidyalaya-Pattiyagedara, BA07



Figure 47 - Tree planting programme at forest reservation of Ladduma tank, BA05



Figure 48 - Tree planting programme Rathambalawa Primary School- Hambegamuwa, MO03



Figure 49 - Tree planting programme Helamulla Tank reservation, MO07





Figure 50 - Plant Nursery maintain by Tudawe Brothers (PVT) LTD - MO07

## 6.2 Training and Awareness

77. PIC06 arrange number of training and awareness sessions to enhance the Environmental and Social safeguards from the commencement of the UVA iRoad programme. ADB (TA consultant) and RDA has conducted several training and awareness programmes to develop knowledge and skills to protect the environment and develop social safeguard activities for PIU, PIC06 and Contractor's staff engage in the UVA iRoad programme.

78. PIC06 understood in the second quarter of the 2019 most of the technical staff are appointed after the first safeguard awareness programmes and technical officers and supervisors were not participated in the previous awareness sessions conducted by the ADB and RDA. Four safeguard awareness programmes were arranged in all RE regions on 29<sup>th</sup> and 30<sup>th</sup> of May 2019, to enhance the knowledge of technical staff and newly appointed staff including the Contractor's personal.



Figure 51 - Training programme conducted by Mr.Saranga Gajasinghe at RE Office Bibila for Bibila RE region



Figure 52 - Training programme conducted by Mr.Saranga Gajasinghe at Akarshi Flora Reception hall- Athiliwewa for Buttala RE region.





Figure 53 - Training programme conducted by Mr. Saranga Gajasinghe at Udanee Reception hall Bandarawela for Bandarawela RE region



Figure 54 - Training programme conducted by Mr. Saranga Gajasinghe at CE Office Badulla for Badulla RE region

79. Project Director UVA iRoad and Team Leader PIC06 emphasized to conduct awareness programmes to selected Contractors due to lack of safeguard knowledge. ES and SGRS of PIC06 conducted number of safeguard awareness programmes to the selected Contractors in Badulla and Monaragala districts, during the programmes mainly focused to the Contractual requirements stipulated in the Contract Document, safety aspects, EARF requirements and guidelines given in the RF. All Technical staff except the labours and CE office technical staff including the laboratory staff participated in the programme.



Figure 56 - Special safeguard awareness programme BA05 package



Figure 55 - Special safeguard awareness programme MO01 package

80. Regular inhouse training sessions were conducted for all safeguard staff engaged in the UVA iRoad programme by Environmental Specialist and SGR Specialist to develop the knowledge. Contractors and PIC06 safeguard officers were educated environmental and social safeguard issues regularly during this inhouse training programmes. Environmental officers present their specific safeguard problems with other ESOs and share knowledge and experiences in this awareness programmes. ES and SGRS made the solutions for each and every social and environmental safeguard issues with their expertise. The safeguard team of PIU made the comments and unsolved problems escalate to the PD for sound engineering and administrative solutions.



Figure 57 – TL addressed the Safeguard training session for ESOs conducted in TL office Badarawela



Figure 58 - Safeguard training session for ESOs conducted in MO02 CE office

Table 64 - Special Safeguard Awareness Programmes to the selected contractors

Contract Package	Contractor	Date	Location	Resource Person
MO07	Tudawe Brothers (PVT) LTD	22/07/2019	Contractor's Site Office	Conducted by ES and SGRS PIC06
MO05	Tudawe Brothers (PVT) LTD	23/07/2019	CE Office MO05	
BA05	CNTIC – RDCE JV	01/08/2019	Contractor's Site Office	
BA04	CNTIC – RDCE JV	23/10/2019	Contractor's Site Office	
MO01	AMSK – CGGC JV	04/11/2019	Contractor's Site Office	
BA02	Komuthi - HCM JV	22/11/2019	CE Office BA02	
BA03	CML - MTD	28/11/2019	Contractor's Site Office	
BA06	CML - MTD	18/12/2019	Contractor's Site Office	

### 6.3 In-house training

Table 65 – Details of in-house training conducted during the reporting period

SN	Date	Venue	Conducted By	Participants	Description	Participation		Total
						M	F	
1	17.01.2019	Team Leader' Office	Environmental Specialist -PIC06, SGR Specialist – PIC06, SSS Officer -RDA and EO - RDA	Badulla and Monaragala Districts Environmental & Social Safeguard Officers & Safety Officers	<ul style="list-style-type: none"> <li>o GRC Meetings</li> <li>o Site safety improvements and issues</li> <li>o HIV/AIDS prevention and health awareness programs</li> <li>o Road safety school awareness programs</li> <li>o Site notices</li> <li>o Progress report</li> </ul>	17	9	25
2	07.02.2019	Resident Engineer's Office at Badulla	Environmental Specialist -PIC06, SGR Specialist – PIC06, SS Officer -RDA and EO - RDA	Badulla District Environmental & Social Safeguard Officers & Safety Officers	<ul style="list-style-type: none"> <li>o Site safety improvements and issues</li> <li>o HIV/AIDS prevention and health awareness programs</li> <li>o Road safety school awareness programs</li> <li>o GAP</li> <li>o Land Donation Process</li> </ul>	13	9	22

3	08.02.2019	Construction Engineer's Office – MO – 04	Environmental Specialist -PIC06, SGR Specialist – PIC06, SSS Officer – RDA, SS Officer -RDA and EO - RDA	Badulla District Environmental & Social Safeguard Officers & Safety Officers	<ul style="list-style-type: none"> <li>o Site safety improvements and issues</li> <li>o HIV/AIDS prevention and health awareness programs</li> <li>o Road safety school awareness programs</li> <li>o GAP</li> <li>o Land Donation Process</li> </ul>	16	6	24
4	23.03.2019	Haldummulla	Environmental Specialist -PIC06, SGR Specialist – PIC06, EO - RDA	Badulla and Monaragala Districts Environmental & Social Safeguard Officers & Safety Officers	<ul style="list-style-type: none"> <li>o GRC Meetings</li> <li>o Site safety improvements and issues</li> <li>o Grievances handling procedure</li> <li>o Road safety school awareness programs</li> <li>o GAP</li> <li>o Progress report</li> </ul>	21	9	30
5	09.04.2019	Construction Engineer's Office - Athiliwewa	Environmental Specialist -PIC06, SGR Specialist - PIC	Environmental & Social Safeguard Officers attached to Buttala Resident Engineer's Office	<ul style="list-style-type: none"> <li>o Site safety</li> <li>o Site safety for shut down period and emergency preparedness plan</li> </ul>	6	3	9

6	07.06.2019	Team Leader's Office	Environmental Specialist -PIC06, SGR Specialist – PIC06, SSS Officer -RDA and EO - RDA	Badulla District Environmental & Social Safeguard Officers & Safety Officers	<ul style="list-style-type: none"> <li>o Land donation closing procedure</li> <li>o Public complaints</li> <li>o HIV/AIDS prevention and health awareness programs</li> <li>o Road safety school awareness programs</li> <li>oGAP</li> <li>o Progress report</li> </ul>	8	6	14
7	10.06.2019	Construction Engineer's Office – MO - 02	Environmental Specialist -PIC06, SGR Specialist – PIC06, SSS Officer – RDA, SS Officer -RDA and EO - RDA	Monaragala District Environmental & Social Safeguard Officers & Safety Officers	<ul style="list-style-type: none"> <li>o Land donation closing procedure</li> <li>o Public complaints</li> <li>o HIV/AIDS prevention and health awareness programs</li> <li>o Road safety school awareness programs</li> <li>o GAP</li> <li>o Progress report</li> </ul>	14	4	18
8	06.07.2019	Team Leader's Office	Environmental Specialist -PIC06, SGR Specialist – PIC06, SSS Officer – RDA, SS Officer -RDA and EO - RDA	Environmental & Social Officers PIC	o Online monitoring system	11	02	13

9	01.08.2019	Team Office	Leader's	Environmental Specialist -PIC06, SGR Specialist – PIC06	Environmental & Social Officers PIC06	<ul style="list-style-type: none"> <li>o Land donation closing procedure</li> <li>o Public complaints</li> <li>o HIV/AIDS prevention and health awareness programs</li> <li>o Road safety school awareness programs</li> <li>o GAP</li> <li>o Progress report</li> </ul>	09	01	10
10	26.08.2019	Team Office	Leader's	Environmental Specialist -PIC06, SGR Specialist – PIC06	Contractor's Environmental & Social Officers Badulla packages	<ul style="list-style-type: none"> <li>o GRC Meetings</li> <li>o Site safety improvements and issues</li> <li>o Grievances handling procedure</li> <li>o Road safety school awareness programs</li> <li>o Progress report</li> </ul>	13	08	21
11	27.08.2019	MO02 CE's Office Monaragala		Environmental Specialist -PIC06, SGR Specialist – PIC06	Contractor's Environmental & Social Officers Monaragala packages	<ul style="list-style-type: none"> <li>o GRC Meetings</li> <li>o Site safety improvements and issues</li> <li>o Grievances handling procedure</li> <li>o Road safety school awareness programs</li> <li>o Progress report</li> </ul>	15	04	19

12	12.09.2019	Team Leader's Office	Environmental Specialist -PIC06, SGR Specialist – PIC06, SSS Officer -RDA and EO - RDA	Environmental & Social Officers PIC06	<ul style="list-style-type: none"> <li>o Grievances handling procedure</li> <li>o Taking Over process</li> <li>o Site safety improvements and issues</li> </ul>	10	01	11
13	16.10.2019	CE's Office MO06 Ethilliwewa.	Environmental Specialist -PIC06, SGR Specialist – PIC06, SSS Officer -RDA and EO - RDA	PIC06 & Contractor's Environmental & Social Officers PIC06	<ul style="list-style-type: none"> <li>o Taking Over process</li> <li>o Site safety improvements and issues</li> <li>o Road safety school awareness programs</li> <li>o Progress report</li> </ul>	26	09	35
14	04.11.2019	Team Leader's Office	Environmental Specialist -PIC06, SGR Specialist – PIC06, SSS Officer -RDA and EO - RDA	Environmental & Social Officers Badulla packages	<ul style="list-style-type: none"> <li>o Management of disposal yards during the rainy weather conditions</li> <li>o Safeguard compliances on road handling over</li> <li>o Handling of grievance's</li> </ul>	09	08	17
15	05.11.2019	Resident Engineer's Office at Bibila	Environmental Specialist -PIC06, SGR Specialist – PIC06, SSS Officer -RDA and EO - RDA	Environmental & Social Officers Monaragala packages	<ul style="list-style-type: none"> <li>o Management of disposal yards during the rainy weather conditions</li> <li>o Safeguard compliances on road handling over</li> <li>o Handling of grievance's</li> </ul>	15	02	17

## 6.4 Environmental and Road Safety Awareness Programmes

81. The rehabilitated roads with high-speed vehicles and high-volume traffic can cause serious safety concerns to the community. School children are most vulnerable and need awareness on road safety. As part of the GAP implementation process, this training programme has been organized with the aims of creating awareness among children and teachers on road safety and disseminating information on road safety to the community through these two groups.

82. PIC06 decided to include environmental awareness to the road safety awareness programme to enhance the environment and aware the young generation on current environmental issues. During this programme children were educated on global warming, climate change, waste management, sustainable resource using, this programme mainly highlighted water resource, it's scarcity, water pollution and diseases based on water pollution. Environmental awareness sessions were conducted by Environmental Specialist PIC06. Traffic management and road safety awareness sessions were conducted by Sri Lanka police and SGR Specialist PIC06.

83. The directions given by the PIC06 and PIU, Contractors arrange community awareness programmes on environmental and road safety. These community awareness programmes help to spread the knowledge on environmental conservation and sustainable resource usage. Farmer organizations, school parents, government officers such as Grama Niladari and Samurdhi Niladari was the target group for community awareness programme.

84. Senior Social Safeguard Officer PIU has conducted an Environmental Social Safeguard Awareness programme in Tamil medium for Haldumulla Tamil School, at the same programme road safety awareness session was conducted in Tamil medium by Haldummulla Police officers.



Table 66 –Environmental and Road Safety Awareness Programmes

SN	District	Package	Venue	Conducted Date
1	Badulla	BA01	Senanigama Nursery School	14/01/2019
2	Badulla	BA02	B/Thaldena Primary School	08/03/2019
3	Badulla	BA04	B//Hathakma Vidyalaya)	20/06/2019
4	Badulla	BA05	B/ Royal Collage Kumarapattiya	18/01/2019
5	Badulla	BA06	Bd/Beddegama Maha Vidyalaya	06/03/2019
6	Badulla	BA07	Liyangahawela Maha Vidyalaya	27/03/2019
7	Badulla	BA08	Haldummulla Tamil Vidyalaya	06/06/2019
8	Monaragala	MO03	Grade 10-11 school children	25/02/2019
9	Monaragala	MO06	D.S. Senanayake Primary School, Athiliwewa	30/01/2019
10	Monaragala	MO07	Muthukandiya Phase 1 Primary School, Siyabalanduwa	19/06/2019
11	Badulla	BA03	Malangamuwa, Primary School	23/10/2019
12	Monaragala	MO01	Maligathenna Maha Vidyalaya	27/09/2019
13	Monaragala	MO02	Wadikumbura Vidyaloka Maha Vidyalaya, Wadikumbura	31/07/2019
14	Monaragala	MO04	Arunodaya preschool on UMO122	09/11/2018
15	Monaragala	MO05	Radaliyadda Junior School, Bibile	27/11/2019
16	Badulla	BA04	Ambewela school /Neluwa	20/12/2019
17	Monaragala	MO07	Heen Halamulla Community Hall	21/11/2019
18	Badulla	BA05	Mudanawa Community Hall	26/10/2019
19	Monaragala	MO03	Rathabalagama school, Hambegamuwa	31/10/2019
20	Monaragala	MO02	Community – UMO 093	29/06/2019



Figure 59 - Mr. Thilak Kandegama (Environmentalism) conducted awareness programme for Farm Organization in Siyambalanduwa, MO07



Figure 60 - ES PIC06 conducted school awareness programme at Malangamuwa Primary School, BA03



Figure 62 - ES PIC06 conducted awareness programme for Farm Organization at Ambewela Primary School, BA04



Figure 61 - ES PIC06 conducted awareness programme for Farm Organization at rural Community hall- Ladduma, BA05



Figure 63 - SSSO PIU conducted awareness programme in Tamil medium for students of Haldumulla Tamil School, BA08



Figure 64 - ES PIC06 conducted awareness programme for students of Baddegama MV, BA06



Figure 66 - ES PIC06 conducted awareness programme for students of Wedikumbura MV, MO02



Figure 65 - ES PIC06 conducted awareness programme for students of Maligathenna MV Badalkumbura, MO01



Figure 68 - ES PIC06 conducted awareness programme for students and parents of Horabokka MV, MO04



Figure 67 - ES PIC06 conducted awareness programme for students and parents of Rathambalaawa primary School, Hambegamuwa – MO03



Figure 69 - Lighting the oil lamp in awareness programme for students of Liyangahawela Primary School– BA07



Figure 70 - ES PIC06 conducted awareness programme for students of Radaliyadda MV, Bibila – MO05





Figure 71 - SGRS PIC06 conducted awareness programme for students of DS Gama Primary School - MO06



Figure 72 - Road safety awareness programme conducted by Sri Lanka police at Hathakma Primary school, Haliela. BA04



Figure 73 - Environmental Pioneer Brigades presenting Environmental Song before Awareness programme at Wedi Kumbura MV, MO02



Figure 74 - School children presenting a drama during Awareness programme at Muthu Kandiya 01 Piyawara School - MO04

## 6.5 Special Training and Awareness Programmes.

85. ADB SLRM was conducted special environmental training programme on online monitoring and preparing SSEMAP on 24<sup>th</sup> and 25<sup>th</sup> of June 2019 by Dr. Bandara of ADB including field training and practical sessions at Araliya City Hotel, Nuwaraeliya. This programme conducted for Environmental and Social Safeguard team of PIU and PIC06, Resident Engineers, AREs and PIC01, PIC02, PIC03, ESs and ESSOs were participated. Project Director UVA and TL PIC06 participated in the inaugural session and TL PIC03 participated in the programme for share experience with the participants thorough Q & A session.



Figure 75 - Team Leader PIC06 address the session in online monitoring training conducted by ADB



Figure 76 - Dr. Bandara (ADB) conducted field training session in BA05 package.

86. All Contractors are conducting toolbox meetings in the contractor's yards, site offices and etc. to aware the Contractor's labour force and site staff to eliminate accidents. Some contractors are conducted dengue prevention programmes, first aid trainings and firefighting trainings to develop the staff knowledge and prevent accidents during the day to day activities. (Refer annexure 14 - Details of other trainings and awareness programmes conducted by the Contractors)

## 6.6 Cooperate Social Responsibilities (CSR)

87. Contractors were encouraged to conduct CSR programmes to develop public livelihood simultaneously to the construction activities in rural areas. Most of the Contractors are conducting various type of CSR programmes, providing machineries, labours, educational aid, shramadana campaigns, etc. to develop public livelihood of the area. Some Contractors are working on environmental protection activities such as rescue wild life, environment cleaning programmes, mosquito breeding prevention activities in there CSR programmes. The contractors were encouraged to plant trees more than the Contractual requirement. Contractors are willing to plant trees in volunteer basis to minimize the climate change effect and global warming. (Refer Annexure 15 - Contractors' CSR programmes)

88. MO06 package provide machineries and labour in Elephant rescue mission in Athiliwewa by the request of Department of Wild life Conservation officers of the area. An elephant fallen in to an agrarian well and trapped in the water, the Hovael Construction (PVT) Ltd provided backow loader and excavator to prepare a path to escape.





Figure 77 – prepare a path to escape from the agrarian well to the elephant



Figure 78 - ES, SGRS and CE PIC06 participated in the Tool box meeting, MO07



Figure 79 - First aid training session conducted by Red Cross Society- Badulla, BA01



Figure 80 - Small group awareness at Tool box meeting, BA03



Figure 81 - First aid training session conducted by 1990 Ambulance Service, MO02

## 7.0 Conclusion and recommendations

89. iRoad 2 Programme in Uva province, include 15 Conventional Road Contracts, which are distributed in Badulla and Monaragala Districts of Uva Province, Sri Lanka. iRoad 2 in Uva province is the first programme which has started civil works in Second iRoad Programme. The CSD concept is being successfully practiced in iRoad 2 (Uva).

90. Contract packages in Badulla District except BA01 delayed the construction progress due to various factors, mainly cash flow issues hampered Contractor's work progress. This delay may lead environmental and social concerns such as disturbance to the public, dust emissions, accumulation of debris in road sides, etc. PIU and PIC06 have taken many actions to prevent safeguard issues. Public complaints were received due to poor progress and PIU and PIC06 arrange public awareness sessions to aware the public and authorities with the Contractors. Team Leader issued Contractual Notices to the poor performing Contractors to alarm the Contractors and the Employer.

91. Environmental safeguard is a major component of the iRoad 2 (Uva) which is comply with Sri Lankan legislations and ADB safeguard policies (SPS 2009). Regular monitoring of environmental conditions and requirements of iRoad 2 (Uva) enable to keep the programme in line with environmental safeguards compliance as indicated in the FAM, EARF and IEER for the programme. Education and awareness programs are being conducted to all stakeholders to protect existing environment and its unique characteristics and mitigate harmful impacts due to road construction activities or operational activities.

92. Uva – iRoad Programme is adhering to the EMAP of the contract document which is signed by the Contractors and the RDA and EARF prepared by the RDA. All contractors were aware by CSD Specialist of ADB and ESDD staff of RDA during the early stage of the project. PIU has conducted awareness programmes to build the capacity related to environmental safeguards of all Contractors' ESOs. TA Consultant appointed by ADB, streamline the safeguard requirement up to the international standard in entire iRoad programme and PIC06 recommended to continue that facility to develop the personal and project capacity.

93. All the contractors submitted initial SSEMAPs. The contractors ensure to update cluster/road wise SSEMAPs continuously. They comply the requirements of EMAP and EARF to ensure the environmental safeguards and its protection up to a satisfactory level. PD, TL, and safeguard team of PIU and PIC06 continuously guide the contractors and PIC06 engineering staff to protect the existing environment.

94. Following recommendations are given to keep up the quality and assurance of the environmental safeguard of iRoad 2 (Uva):

- Regular monitoring of the road construction sites that the contractors are compliance with approved Cluster/Road specific SSEMAPs.
- Education and awareness programs to public on environment safeguard.
- Record keeping and reporting of environmental related activities.
- Dissemination of the knowledge.
- In-house training programs regarding environment safeguard will be conducted to the staff.
- Education awareness programme for school children recommended to continue.

- Changed designs appropriate to the site conditions will be able to conserve roadside environment.
- Record keeping such as SSEMAPs' and EMCs' will be helpful to monitor environmental conservation progress in each road. This will be useful to take critical decisions.

95. The PIC06 recommended to the donor agency to educate the environmental and social safeguard team with international experts of environmental and social safeguards with international experiences.

96. This report contains the environmental compliances during period of 1<sup>st</sup> January 2019 to 31<sup>st</sup> December 2019. PIU, PIC06 and the all Contractors (CRCs) are aligning to the aspects of environmental safeguard including in IEE, EARF and Contract Agreement. Next Annual Environmental Compliance Monitoring Report will be prepared for the period of 1<sup>st</sup> January 2020 to 20<sup>th</sup> July 2020 (As per the original Contract period).



## Annexures

### Annexure 1 - Key PIC06 Staff Mobilized as at 31 December 2018

No	Position	Name	Date of Mobilization	Contract Package	Remarks
01	Team Leader and Chief Resident Engineer	Paul Cox-Martin	2018/07/11	TL Office	Resigned on 2019/01/14
02	Team Leader and Chief Resident Engineer	Robert D'Cruz	2019/01/14	TL Office	
03	Contract & Claims Specialist	James T Withington	2019/04/22	TL Office	Assignment completed on 2019/06/23
			2019/11/17	TL Office	Assignment completed on 2019/12/15
04	Contract & Claims Engineer	V.Nimal Jayasiri de Mel	2019/04/01	TL Office	
05	Resident Engineer - 1	P Vidyaratna	2018/07/12	RE 1	
	Deputy Team Leader (Acting)		2018/07/29	TL Office	
	Deputy Team Leader		2018/12/12	TL Office	Resigned on 2019/03/30
06	Deputy Team Leader	B D Sarath Kumara	2019/11/01	TL Office	
07	Resident Engineer - 1	Anura Wijetunga	2018/11/02	RE 1	Resigned on 2019/9/30
08	Resident Engineer - 1	W M R L Wijesekara	2019/12/02	RE 1	
09	Resident Engineer - 2	M S Niyamathulla	2018/07/11	RE 2	Resigned on 2018/09/18
10	Resident Engineer - 2	S.Viraj Ekanayake.	2018/12/01	RE 2	
11	Resident Engineer - 3	R A P Wijewardhana	2018/08/14	RE 3	Resigned on 2019/01/11
12	Resident Engineer-3	H M A M Herath	2019/2/12	RE 3	
13	Assistant Resident Engineer - 1	A P Rubasinghe	2018/07/02	RE 2	
	Resident Engineer (Acting)		2018/08/14		
	Resident Engineer - 4		2018/12/12	RE 4	
14	Assistant Resident Engineer -1	R M D C K Jayasekara	2018/07/02	RE 1	Resigned on 2019/10/31
15	Assistant Resident Engineer -1	K G M Gunapala	2019/10/30	RE 1	
16	Assistant Resident Engineer -2	K M N T Wijayasiri	2018/12/17	RE 2	
17	Resident Engineer -2 (Acting)	A M S K Senavirathna	2018/09/25	RE 2	
	Assistant Resident Engineer -3		2018/12/07	RE 3	Resigned on 2019/08/31
18	Assistant Resident Engineer -3	K R S Kahatapitiya	2019/09/10	RE 3	
19	Assistant Resident Engineer -4	P G D L Gunawardana	2018/09/01	RE 4	
20	Rural Road Design and Safety Engineer	H M W D Herath	2018/09/01	RE1, RE2	

21	Rural Road Design and Safety Engineer	Isuru Samarasinghe	2019/04/01	RE3	
22	Rural Road Design and Safety Engineer	P M M Vipulaguna	2018/09/01	RE4	
23	Material Engineer - REBD	K K Lal Ranaweera	2018/08/13	RE 1	
24	Material Engineer - REBW	N M Nawarathna	2018/07/15	RE 2	
25	Material Engineer - REBB	K L Gamini	2018/10/15	RE 3	
26	Material Engineer - REBT	G D S Ranasinghe	2018/08/16	RE 4	
27	Planning Engineer	A C Gunaratne	2018/07/12	TL Office	
28	Structural Engineer	W D R N Perera	2018/07/15	TL Office	
29	Environmental Specialist	M P G Paranamanna	2018/08/24	TL Office	
30	Social/Gender/Resettlement Specialist	D A D Ranjith	2018/09/18	TL Office	
31	Land Surveyor - REBD	Nimal Karandawela	2018/07/15	RE 1	
32	Land Surveyor - REBW	K A C Priyankara	2018/08/01	RE 2	
33	Land Surveyor - REBB	T Sureshkumar	2018/08/01	RE 3	Resigned on 2019/08/21
34	Land Surveyor - REBB	K Rameshkumar	2019/09/02	RE 3	
35	Land Surveyor - REBT	S Saranraj	2018/08/10	RE 4	Resigned on 2019/08/15
36	Land Surveyor - REBT	W M V Thilakarathne	2019/09/04	RE 4	
37	Quantity Surveyor - REBD	B M A S Kumara	2018/07/06	RE 1	Resigned on 2018/09/15
38	Quantity Surveyor - REBD	W M S P K Wickramasinghe	2018/10/15	RE 1	
39	Quantity Surveyor - REBW	P W C K Dayarathna	2018/09/13	RE 2	
40	Quantity Surveyor - REBB	K. Amarasinghe	2018/10/29	RE 3	Resigned on 2019/06/17
41	Quantity Surveyor - REBB	K M R C Dharmadasa	2019/06/17	RE 3	
42	Quantity Surveyor - REBT	K H Ajith Kumara	2018/10/01	RE 4	
43	Construction Engineer	P.N.J. Senewirathne	2018/12/17	TL Office	Resigned on 2019/12/29
44	Construction Engineer	D M A Dissanayake	2018/07/12	BA 1	
45	Construction Engineer	P M A A Gayan	2018/09/25	BA 2	
46	Construction Engineer	M P Kasturiarachchi	2018/07/02	BA 3	
47	Construction Engineer	D G S Senadheera	2018/08/20	BA 4	
48	Construction Engineer	J P S Maduranga	2018/08/23	BA 5	
49	Construction Engineer	W A S Chathuranga	2018/09/03	BA 6	
50	Construction Engineer	A M Wickramasinghe	2018/08/13	BA 7	Resigned on 2019/05/31
51	Construction Engineer	W K Rajapaksha	2018/08/27	BA 8	
52	Construction Engineer	L H M S Kumara	2018/10/01	MO 1	Resigned on 2019/09/07

53	Construction Engineer	A S Jayawardhane	2019/10/14	MO 1	
54	Construction Engineer	N G M Kumara	2018/07/10	MO 2	
55	Construction Engineer	D G A K Ranaweera	2018/07/02	MO 3	
56	Construction Engineer	L K N Chameera	2018/10/01	MO 4	
57	Construction Engineer	L P G R Ranasiri	2018/07/16	MO 5	Resigned on 2019/10/31
58	Construction Engineer	S D Eranda	2018/07/10	MO 6	
59	Construction Engineer	W K I Fernando	2018/07/16	MO 7	Resigned on 2019/11/17
60	Junior Engineer	G Thinesh	2018/08/13 to 2019/06/30	RE 2	
	Construction Engineer		2019/07/01	BA 07	
61	Junior Engineer	W T M Wickramasinghe	2018/07/16 to 2019/11/21	TL Office	
	Construction Engineer		2019/11/22	MO 7	

## Annexure 2 - Cost to completion report

Contract Package	Road Design Cross Section Completion %	Contract Price Sub Total After Discount/ LKR	Physical Contingencies/ LKR	Revised Cost End of Dec/ LKR	Cost Increase for allowing Physical Contingencies /LKR	Cost Increase for Earthworks / LKR	Cost Increase %	Comments
BA01	100	1,713,247,681.29	171,324,768.13	1,671,071,979.38	(213,500,470.04)	156,356,454.36	-12.46%	Within budget
BA02	36	1,885,685,965.00	188,568,596.50	2,178,568,239.00	104,313,677.50	72,112,630.00	5.53%	Physical contingency exceeded
BA03	41	2,049,136,162.77	204,913,616.28	2,320,205,096.31	66,155,317.26	111,384,487.54	3.23%	Physical contingency exceeded
BA04	66	1,765,611,448.44	176,561,144.84	1,979,231,800.84	37,059,207.56	64,854,231.00	2.10%	Physical contingency exceeded
BA05	77	2,087,472,473.38	208,747,247.34	2,355,315,888.95	59,096,168.23	159,873,830.43	2.83%	Physical contingency exceeded
BA06	100	1,954,833,687.47	195,483,368.75	2,222,264,478.30	71,947,422.08	122,969,962.90	3.68%	Physical contingency exceeded
BA07	93	2,051,188,340.12	205,118,834.01	2,349,747,153.24	93,439,979.11	178,447,254.78	4.56%	Physical contingency exceeded
BA08	94	1,539,771,318.00	153,977,131.80	1,777,123,309.45	83,374,859.65	81,833,017.50	5.41%	Physical contingency exceeded
MO01	95	1,867,696,380.00	186,769,638.00	1,971,992,749.50	(82,473,268.50)	89,180,870.50	-4.42%	Within budget
MO02	88	1,576,558,574.80	157,660,646.08	1,655,757,953.30	(78,461,267.58)	75,699,340.00	-4.98%	Within budget
MO03	98	1,834,564,024.60	183,456,402.46	1,978,539,319.22	(39,481,107.84)	233,148,781.06	-2.15%	Within budget
MO04	74	1,895,409,174.20	189,540,917.72	1,858,141,216.49	(226,808,875.43)	96,301,747.41	-11.97%	Within budget
MO05	63	1,713,998,037.80	171,399,803.78	1,637,816,917.81	(247,580,923.77)	59,292,202.34	-14.44%	Within budget
MO06	88	2,261,203,860.97	226,120,386.10	2,430,244,052.28	(57,080,194.79)	409,505,049.61	-2.52%	Within budget
MO07	94	1,548,406,214.33	154,840,621.43	1,613,099,062.67	(90,147,773.09)	116,319,162.99	-5.82%	Within budget
Overall	80	27,744,783,343.17	2,774,483,123.22	29,999,119,216.74	(520,147,249.65)	2,027,279,022.42	-1.87%	

### Annexure 3 – CEA concurrence for iRoad UVA programme

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மத்திய சுற்றுடல் அதிகாரசபை  
**Central Environmental Authority**

"Parisara Piyasa", 104, Denzil Kobbekaduwa Mawatha, Battaramulla, Sri Lanka. Web: [www.ces.lk](http://www.ces.lk)

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of VHF  
Your Ref.

27.08.2018

Director General  
Road Development Authority  
Maganeguma Mahamedura  
Denzil Kobbekaduwa Mawatha  
Battaramulla

03 SEP 2018

REHABILITATION OF RURAL ROADS IN UVA PROVINCE OF SRI LANKA  
UNDER I-ROAD PROGRAM STAGE II (I ROAD II) OF ROAD DEVELOPMENT  
AUTHORITY

This has reference to your letter No. RDA/ADB/Road2/Uva/Gen dated 23.07.2018 and to the information attached therein regarding road projects under the above Programme.

- a). As per the information provided by you, the road projects to be rehabilitated (as described in Appendix 2 attached to the above letter) do not require to undergo Environmental Impact Assessment or Initial Environmental Examination approval process under the National Environmental Act.

However, in order to mitigate any environmental impacts from the above projects, we advise you to adhere to the guidelines given in the attachment No.01 to this letter. Please incorporate these guidelines in the contract documents, so that the contractor or sub contractor is held responsible for carrying them out during construction and on completion of the work.

- b). You are also advised to obtain recommendations from the Department of Wildlife Conservation and/or Forest Department if any section of above roads falls inside or adjacent to a Protected Area/ Forest Reserve administered by the above Departments.

**Kanthi De Silva**  
Actg. Deputy Director General (EM&A)

Ce:

1. Conservator General of Forest/ Forest Department
2. Director General/ Department of Wild Life Conservation
3. Director/ Environment & Social Division/ RDA
4. Project Director/ i Road Project/ RDA
5. Director/ Uva Provincial Office/ CEA

① 22.1 (ESD) / van der Waals (W)  
pl - monitor the above conditions

TP/EIA/Transport/Highways/Other Roads/ I Road/ Usa PO/ Cover let

⑤ Mr. Malak  
P. 2. pl.  
Gr 03/09/2018

<b>Chairman</b>	Tel: 2672361, 2672348 Fax: 2672347	<b>Director General</b>	Tel: 2672359 Fax: 2672608	<b>General Office</b>	Tel: 2672276, 2673477, 2673410 2672272, 260	<b>Compliance</b> 2640000 <b>Compliance Monitoring</b> 2676132
<b>Deputy Director General</b>	<b>HRD, Admin &amp; Finance</b> Tel: 2668296 Fax: 2671513	<b>Env. Pollution Control</b> Tel: 2673443 Fax: 2672607	<b>Env. Mgr &amp; Assess</b> Tel: 2672388 Fax: 2672206	<b>Env. Edu &amp; Awareness</b> Tel: 2672267 Fax: 2672606	<b>Waste Mgt.</b> Tel: 2672249 Fax: 26013	

കിരീടത്തിൽ താഴെ കാണിച്ചിരിക്കുന്നവർക്ക് മാത്രമായി പ്രയോജനപ്പെടുത്തേണ്ടതാണ് | Ministry of Mahaweli Development & Environment

## GUIDELINES

### **1. LAND FILLING/ SPOIL DISPOSAL**

- 1..1 If the project activities involve in reclamation of paddy lands prior approval should be obtained from the Agrarian Development Department.
- 1..2 Excavated material, excess top soil or material generated due to demolishing of structures should not be disposed at road sides or into water ways or at a site where it is likely to enter a water body. These materials shall be stockpiled at suitable locations and removed from the site to suitable disposal grounds/landfill sites in nuisance free manner.
- 1..3 Suitable disposal grounds/land fill sites should be identified and approval should be obtained from the relevant Local Authority and other relevant authorities before commencing any kind of clearing activity.
- 1..4 Loading and unloading of materials such as soil, boulders etc. should be restricted to the time between 6.00hrs to 22.00 hrs. only.

### **2. EXCAVATION, HANDLING, PROCESSING OF MATERIALS**

- 2..1 For operation of quarry sites and borrow areas approvals should be obtained from relevant authorities such as Geological Survey & Mines Bureau (GS & MB), Local Authority, Divisional Secretariat and CEA.
- 2..2 All blasting/ quarrying activities shall be carried out under valid licences issued by GS & MB and CEA".
- 2..3 Required approval/ Licence for operation of asphalt plants, crusher plants and concrete batching plants should be obtained from the CEA.

### **3. Air Quality**

- 3.1 All the materials (sand, soil, rubble, metal, cement etc.) required for the construction shall be stored with proper covers to minimize dust emissions.
- 3.2 The loaded trucks should be covered while on transport in order to reduce the possibility of dust emission.
- 3.3 During dry periods it is necessary to dampen the exposed areas of roads at regular intervals to prevent emission of dust.



#### 4. NOISE & VIBRATIONS

- 4.1 Appropriate mitigatory measures should be adopted in order to maintain noise levels within the standards stipulated by the CEA in Gazette Extra Ordinary No. 924/12 dated 23<sup>rd</sup> May 1996.
- 4.2 Vibration levels generated by operations of machineries, construction activities, vehicle movements and blasting activities should be maintained within the interim standards stipulated by the CEA (Annex 1).

#### 5. TRAFFIC AND TRANSPORTATION OF MATERIAL & EQUIPMENT

- 5.1 Movement of heavy loads on public roads for project purposes shall be done with the concurrence of the concerned authorities such as Local Authorities, Road Development Authority, Provincial Road Development Authority etc., and shall be done at non-peak traffic times.
- 5.2 The routes for transport shall be done in consultation with the appropriate traffic authorities.
- 5.3 Action should be taken to minimize the disturbance to existing traffic due to project activities

#### 6. HYDROLOGY AND DRAINAGE ASPECT

- 6.1 Natural drainage pattern of the surrounding area of the road should not be disturbed due to the project activities and adequate drainage facilities should be maintained in order to avoid water logging, flooding etc.
- 6.2 Prior approval should be taken from relevant authorities such as Irrigation Department, Provincial Irrigation Department and Local Authority etc., for type and size etc. of any cross drainage structures.

#### 7. SOIL CONSERVATION AND STABILIZATION OF ROAD EMBANKMENT

- 7.1 Precautionary measures should be taken to ensure slope stability especially from unstable rock boulders of the road embankment where cut and fill operations are carried out. Recommendations should be obtained from relevant agency where appropriate before such operations are to be carried out.

- 7.2 Site-specific protection measures (such as rubble masonry walls/concrete retaining walls/gabion walls or soil nailing etc.) at embankment slopes, stream banks, hill slopes, etc., should be constructed where it is required.

## 8. VISUAL ENVIRONMENT

- 8.1 Clearing of vegetation should be minimized as much as possible. Suitable species of trees, lianas and creepers should be planted appropriately either side of the road and its embankments where possible.


## 9. MISCELLANEOUS

- 9.1 If vehicle servicing stations are required to be established for the vehicles of the project, it should be done with prior approval of the CEA.
- 9.2 Setting up of labour camps should be done with prior approval of the relevant authorities such as Local Authorities etc.
- 9.3 Damages during the construction period of the project and the people directly affected due to project activities should be properly compensated.
- 9.4 Accessibility to private lands shall not be disturbed due to project activities/structures
- 9.5 Any damage to archeologically, religious and culturally important sites/monuments should be avoided during the construction of the road.
- 9.6 Any additional conditions stipulated by the Central Environmental Authority as and when required for controlling any kind of pollution created by the operations shall be strictly adhered to.
- 9.7 This is only a permit for discharge of effluents/emissions or emitting of noise levels according to stipulated standards. The written approval of the relevant Local Authority and other relevant agencies should be obtained for the implementation of project at proposed location.


TPEIA Transport/Highways/Other Roads/ I Road/ Uva PO: Guidelines for road Rehab



Annexure 4 – PD's request letters to DoFC and Archeological Department



**මහාමාර්ග හා මාර්ග සංවර්ධන සහ බෙහිව හෙල් සම්පත් සංවර්ධන අමාත්‍යාංශය**  
**MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT AND PETROLEUM RESOURCES DEVELOPMENT**



**මාර්ග සංවර්ධන අධිකාරිය**  
**ROAD DEVELOPMENT AUTHORITY**

මගේ අංකය  
 My No. RDA/ADB/ROAD II/UVA/Gen/348

ඔබේ අංකය  
 Your No. \_\_\_\_\_

දිනය  
 Date 2019.07.13

**දෙවන ඒකාබද්ධ මාර්ග ආයෝජන වැඩසටහන - ෆුව පළාත**  
**இரண்டாம்வது ஒருங்கிணைந்த வீதி முறவீட்டுத்திட்டம் - ஊவா மாவட்டம்**

**SECOND INTEGRATED ROAD INVESTMENT PROGRAM- UVA PROVINCE**  
**386. "Ganeasiri" Genunu Mawatha. Bindunuwewa. Bandarawela. Sri Lanka.**

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ලියවිල්ල වන සංරක්ෂණ නිලධාරීතුමා,  
 වන සංරක්ෂණ දෙපාර්තමේන්තුව,  
 බදුල්ල.

අපි රෝගී වනජාතිය යටතේ සිටින අයත් රක්ෂිතය තුළින් දිවෙන ගම්පහ-කොළොන්නේලන් මාර්ගය (UBA-135) සම්බන්ධවයි.

උක්ක කරුණට අදාළව අප විසින් වන සංරක්ෂණ ජනරාල්තුමා වෙත යවන ලද අංක RDA/ADB/I Road II /UVA/GEN/233 සහ 2019.03.19 දිනයේ ලිපිය හා බැඳේ.

මෙම වනජාතිය යටතේ නිදහස් ප්‍රාදේශීය ලේකම් කොට්ඨාසයට අයත් සහ ප්‍රාදේශීය ඉංජිනේරු (මාර්ග) දිසානාඩ මගින් පාලනය වන ගම්පහ-කොළොන්නේලන් මාර්ගයේ සංවර්ධන කටයුතු TISSA BUILDERS (PVT.) LTD ආයතනය මගින් කරගෙන යනු ලබයි.

මෙම මාර්ගයේ 4 + 500 km සිට 8 + 000 km දක්වා මාර්ග කොටස වන සංරක්ෂණ දෙපාර්තමේන්තුවට අයත් වන සංරක්ෂිතය කරනා දිවැව්. එම මාර්ගය නිසි ප්‍රමිතියට අනුව සංවර්ධනය කිරීමේ දී මාර්ගයේ දැනට නාවිය කරන ප්‍රමාණයට වඩා මීටර් 0 සිට 2 දක්වා වැඩිලනය වන පරිදි මාර්ග සංරක්ෂිතයෙන් ඉඩ ලබා ගැනීමට සිදුවේ. මෙහිදී අප හට ලබා ගැනීමට අවශ්‍ය වන ඉඩ ප්‍රමාණය සලකානු කර දීමේ හැකියාවක්ද ඇත. තවුත් අප විසින් යවනු ලබන ලිපියට මේ වන තෙක් නිසි පිළිතුරක් නොලැබීම නිසා මාර්ගයේ සංවර්ධන කටයුතු ඇතැම් විට ඇත.

වන සංරක්ෂණ ජනරාල්තුමා තුමා විසින් ඉහත මාර්ග ප්‍රකරණපතක සිරිමේ කටයුතු වැඩි වන සංරක්ෂණ දෙපාර්තමේන්තුවට අයත් වනාන්තර කොටස් තුළින් දිවෙන මාර්ග කොටස් සංවර්ධනයට පෙර, එම දිසාවන්වල දිසා වන නිලධාරීන් දැනුවත් කර තිබුණේ අධිකරණය හා පත්වනු ලබන කොන්දේසි යටතේ කටයුතු කරන ලෙස මාර්ග සංවර්ධන අධිකාරියේ අධ්‍යක්ෂ ජනරාල්තුමා වෙත එවන ලද අංක FD/EMD/EIA/RDA/rural roads/2014 සහ 2018.08.18 දිනයේ ලිපියෙන් දැනවා ඇත. ( පිටපත අමුණා ඇත )

ඒ අනුව මෙම ඉල්ලීම ඉහත ලිපිය පාදක කරගෙන සිටි වෙත යොමු කරන අයත් සිරිමෙන් අනුමැතිය ලබා දෙන මෙන් කාරුණිකව ඉල්ලා සිටිමි.

ඒම එම පි කේ මුහුණදීම

ජ්‍යෙෂ්ඨ ඉංජිනේරු (අධි රෝගී- ෆුව පළාත)

පිටපත:

Eng. M.A.L.C.K. Mohandirani  
 Senior Engineer  
 Integrated Road Investment Programme  
 Uva Province  
 Road Development Authority  
 Genu Shri, Genunu Mawatha,  
 Bindunuwewa, Bandarawela

1) වන සංරක්ෂණ ජනරාල්තුමා-බන්තරමුල්ල - දු.ගැ.ස. 2) අර්ථ වන නිලධාරීතුමා-නපුරනේල් - දු.ගැ.ස. 3) ප්‍රාදේශීය ලේකම්- නපුරනේල් - දු.ගැ.ස. 4) ප්‍රාදේශීය ඉංජිනේරු (මාර්ග) දිසානාඩ - දු.ගැ.ස. 5) කේටාඩක ඉංජිනේරු-(PEC-CEA) JV-මානිකාරවෙල - දු.ගැ.ස. 6) වනජාති සලකුණකරු- TISSA BUILDERS (PVT.) LTD - දු.ගැ.ස.	
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**මහාමාර්ග හා මාර්ග සංවර්ධන සහ බිහිප තෙල් සම්පත් සංවර්ධන අමාත්‍යාංශය**  
**MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT AND PETROLEUM RESOURCES DEVELOPMENT**



**මාර්ග සංවර්ධන අධිකාරිය**  
**මගේ අංකය**  
**මගේ අංකය**  
**ROAD DEVELOPMENT AUTHORITY**



**මගේ අංකය**  
**My No.**  
**මගේ අංකය**  
**Your No.**  
**දිනය**  
**Date**

**මගේ අංකය**  
**My No.**  
**මගේ අංකය**  
**Your No.**  
**දිනය**  
**Date**

**RDA/ADB/iROAD 3/UVA/Gen/466**

**මගේ අංකය**  
**My No.**  
**මගේ අංකය**  
**Your No.**  
**දිනය**  
**Date**

**2019.11.01**

**දෙවන ඒකාබද්ධ මාර්ග ආයෝජන වැඩසටහන - ෭ව පළාත**  
**இரண்டாம் பட்டி ஒன்றியம் - 7வது மாகாணம்**  
**SECOND INTEGRATED ROAD INVESTMENT PROGRAM- UVA PROVINCE**  
**386, "Ganagasiri" Gemunu Mawatha, Bindunuwewa, Bandarawela, Sri Lanka.**

සහකාර අධ්‍යක්ෂ,

දිස්ත්‍රික් පුරාවිද්‍යා කාර්යාලය,

පැරණි සවිවේරි සංකීර්ණය,

මොණරාගල.

**අයි රෝඩ් ව්‍යාපෘතිය යටතේ සිටි අයත් තිත්වෙහෙර පුරාවිද්‍යා රක්ෂිතය ආකේෂයෙන් දිවන හම්බන්තොට පන්තේ**  
**තත්වයේ සිටි රක්ෂිතව මාර්ගය (UMO-070) සංවර්ධනය කිරීමේදී,**

ශ්‍රී ලංකා රජය මගින් ආසියානු සංවර්ධන බැංකුවේ ණය ආධාර මත හා මහාමාර්ග හා මාර්ග සංවර්ධන අමාත්‍යාංශය හා එක්ව දෙවන ඒකාබද්ධ මාර්ග ආයෝජන වැඩසටහන ෭ව පළාත තුළ ක්‍රියාත්මක කරනු ලබයි.

මෙම ව්‍යාපෘතිය යටතේ තත්වයේ සිටි ප්‍රාදේශීය දේශීය කොට්ඨාසයට අයත් හම්බන්තොට පන්තේ තත්වයේ සිටි රක්ෂිතව මාර්ගයේ සංවර්ධන කටයුතු MAGA ENGINEERING (PVT.) LTD ආයතනය මගින් කරගෙන යනු ලබයි.

මෙම මාර්ගයේ වම් පසින් 2 + 230 km සිට 2 + 285 km දක්වා මාර්ග කොටස (මීටර් 55 ක් පමණ) තිත්වෙහෙර පුරාවිද්‍යා ස්ථානය ආසන්නයෙන් දිවේ. එම මාර්ගය නිසි ප්‍රමිතීන්ට අනුව සංවර්ධනය කිරීමේ දී අවශ්‍යවන ඵලදායීතාවය ලබා දෙන මෙන් කාරුණිකව ඉල්ලා සිටියි.

මේ සඳහා සාමූහික මාර්ග පරීක්ෂණයක් කිරීමට අවශ්‍ය නම් ව්‍යාපෘති ඉංජිනේරු IROAD RDA, පැරණි සංකීර්ණය (දු.අ 076-0977889), ඉදිකිරීම් ඉංජිනේරු අප්පි (දු.අ 076-8501514) සහ ව්‍යාපෘති කළමනාකරු (දු.අ 077-6255369) සම්බන්ධ කර ගන්නා ලෙස ඉල්ලා සිටියි.

මීට අදාළව ඵලදායීතාවය සඳහාත් ලිපියක් යොමු කරන්නේ නම් එය අප ආයතනයට සහ පිටපතක් කොන්ත්‍රාත් ආයතනයේ ලිපිනය වන ව්‍යාපෘති කළමනාකරු, පුරාවිද්‍යා, දෙමටපොළ, කිරිඳිබත්තොට, සෙවනගල යන ලිපිනයටද යොමු කරන ලෙස ඉල්ලා සිටියි.

මෙම ව්‍යාපෘතිය මගින් සංවර්ධනය කිරීමට යෝජිත මාර්ග සංවර්ධනය කිරීමෙන් පසු එම ප්‍රදේශයේ ජනතාවගේ පිවන තත්වය ඉහළ නැංවීම, ප්‍රවාහනය සඳහා ගත වන කාලය අවම වීම තුළින් කාර්යක්ෂමතාවය ඉහළ නැංවීම, සහ අරමුණු ලබා කර ගැනීම සඳහා ඔබ ආයතනයෙන් ලැබෙන සහයෝගය ඉතා අගය කොට සලකමි.

එම් එම් ජී කේ මුත්තරිසම්

Eng. M.M.G.K. Muthandiran  
 Senior Engineer  
 Integrated Road Investment Programme  
 Uva Province  
 Development Authority  
 386, Ganaga Sri, Gemunu Mawatha,  
 Bindunuwewa, Bandarawela

සේනාධි ඉංජිනේරු (අයි රෝඩ්) - ෭ව පළාත  
 පිටපත:

- 1). ව්‍යාපෘති ඉංජිනේරු IROAD RDA-MO 01 - දු.ග.ස.
- 2). ව්‍යාපෘති ඉංජිනේරු IROAD RDA-MO 02 - දු.ග.ස.
- 3). නේවාසික ඉංජිනේරු (PEC-CEA) JV-මුත්තල - දු.ග.ස.
- 4). ව්‍යාපෘති කළමනාකරු- MAGA ENGINEERING (PVT.) LTD (MO 03) - අ.ස.ස.

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## Annexure 5 - CSD applications

SN	Package	Description	Request made by	Road ID	Location (Premises & Chainage)	Engineers Approval	Status (Completed/In Progress)
1	BA01	0+835 - 0+855 LHS location enhancing the parking area and introducing rumble strips. Demarcating the road crossing area using white lines.	Senanigama School's Principle	UBA113	0+835 - 0+855 LHS	Approved	In Progress
2	BA01	Rehabilitating the road from Tissapura junction 3+120 to 3+830 road into two lanes & Developing a parking area From 3+120 to 3+530 since it is more congestion area	GRC Uvathissapura	UBA 005	Tow lane area - 3+120 to 3+830 parking area- 3+120 to 3+530(Both Side)	Approved	In Progress
3	BA01	UBA 004 road, seven trees can be preserved, after intervention of PIC (Environmental & social Specialist) & RDA (Environmental & Social). Above some trees have historical values & some are more importance for dynamism of surrounding 's eco- system	<b>Farmers of</b> surrounding Farmers of surrounding paddy	UBA 004	0+850 - 1+200 (Both Side 0+850 - 1+200 (Both Side)	Approved	Completed
4	BA01	UBA 011 road, traditionally important Boo-tree at 0+840 can be preserved as Constructing toe wall (0+840 - 0+ 860) & Road shifted to LHS	Villages	UBA 011	0+827- 0+874	Approved	Completed

SN	Package	Description	Request made by	Road ID	Location (Premises Chainage) &	Engineers Approval	Status (Completed/In Progress)
5	BA02	To get the land strip which needs for the road construction from the opposite side of the road	Mr. S.M.Dissanayake	UBA 212	1+100 (RHS)	Approved	Completed
6	BA02	Not to cut down the trees on the canal bunt and make the necessary design changes	Irrigation Engineer, Divisional Irrigation Department, Kandaketiya.	UBA 95	2+650 - 4+005 LHS	Approved	In Progress
7	BA02	Requesting a road crossing at the school entrance	Principal of B/ Bathalawatta Vidyalaya	UBA 329	0+840	Pending	In Progress
8	BA02	To reconstruct one of the public roads connects to Polgaharawa Main Road by unsuitable soil which excavated from road way excavation	D.M.Nandasena	UBA 295	3.+000(LHS)	Pending	In Progress
9	BA02	To Construct Retaining wall	S. Ruwan Udaya	UBA 295	0+110 (LHS)	Approved	Completed
10	BA04	Protect the water spring at LHS of the road UBA 054, 2+800	Transect walk participant	UBA 054	2+800	Approved	Completed
11	BA04	Protect the water spring at LHS of the road UBA 054, 2+800	Villagers	UBA 054	UBA 054, 2+800	Approved	In progress

SN	Package	Description	Request made by	Road ID	Location (Premises Chainage) &	Engineers Approval	Status (Completed/In Progress)
12	BA04	Widen the road by building-up retaining wall, to avoid any further sliding nearby Houses	House Owner	UBA 316	1+800-1+870	Approved	Not yet started.
13	BA06	The road section near the Pupula Temple was improved by doing initial maintenance as it is very hard for vehicle movements due to the bad road surface.	Chief Priest, Pupula Temple	UBA297 (Pupula Temple Road)	1+170	Approved	Completed
14	MO01	Requested a Retaining wall to school boundary	Principle, Pemananda School, Karawila	UMO 028	3+200-3+265	Approved	In Progress
15	MO01	Request to protect the common well	Mrs. A. M. Leelawathi	UMO 031	4+750 - 4+850	Approved	In Progress
16	MO02	Protect the 'BO' tree at 0+153 LHS, Shifting of Center Line	GRC Transect walk participant	UMO 144	0+153 LHS	Approved	In Progress
17	MO02	Protect the 'BO' tree at 5+050 RHS, Shifting of Center Line	GRC Transect walk participant	UMO 140	5+050 RHS	Approved	In Progress
18	MO02	Protect the 'Nuga' tree at 0+078 RHS, Shifting of Center Line	GRC Transect walk participant	UMO 075	0+078 RHS	Approved	Processing
19	MO02	Protect the 'Me' tree at 3+775 LHS, Shifting of Center Line	Environmental Specialist	UMO 035	3+775 LHS	Approved	Processing
20	MO03	Five new culverts were proposed to construct	Transect walk	UMO 069	4+090, 4+968, 6+500, 6+625, 7+205	Pending	In Progress

SN	Package	Description	Request made by	Road ID	Location (Premises & Chainage)	Engineers Approval	Status (Completed/In Progress)
21	MO03	Asphalt width increased up to 6.2m based on public request	Transect walk, Villagers & Somadevi School Principle	UMO 138	0+000 – 1+160	Approved	Completed
22	MO03	Improvement of the dangerous bend	Transect walk	UMO 155	0+640	Approved	In Progress
23	MO03	Increase the length of the road up to Walawe river	Transect walk PRDD	UMO 090	4+580	Pending	In Progress
24	MO03	Avoiding removal of five tube wells which located in the carriageway	Villagers	UMO 155, UMO 145, UMO 89	1+120, 0+118, 0+882, 1+352, 0+670	Pending	In Progress
25	MO04	Road crossing marking made in front of access road on MO/ Pelwaththa primary school	Principal of school	UMO 059	29+044	Approved	In Progress
26	MO04	Road crossing marking made in front of access road on MO/ Sidhartha maha vidyalaya.	Principal of school	UMO 059	24+450	Approved	Partially completed
27	MO05	Requested new culvert	E.P.J. Rathnasiri	UMO 005	3+350	Approved	Completed
28	MO05	Requested to construct a cross drain	J.P. Wimalasiri	UMO 005	1+554	Approved	Completed

SN	Package	Description	Request made by	Road ID	Location (Premises & Chainage)	Engineers Approval	Status (Completed/In Progress)
29	MO05	Improve the Drain System	Secretary, Welfare Society	UMO 038	Ch 0+470 – 1+170	Approved	Completed
30	MO05	VA raised by 60mm	A.M. Ukkubanda	UMO 006	Ch 5+800 – 5+940	Approved	Completed
31	MO05	VA raised by 200mm	Villagers	UMO 001	Ch 2+420 – 2+550	Approved	Completed
32	MO05	Line Drain Continue up to 1+450	P.C. Jayasinghe	UMO 005	Ch 1+450 -1+700	Approved	Completed
34	MO06	Access improvement of Handapanagala primary school, located at 4+300 LHS Road ID UMO 011	Principal of Handapanagala primary school	UMO 011	0+300 LHS	Approved	In Progress
35	MO06	Removal of abandoned common well and improvement of blind curve at 3+090 RHS, Road ID UMO-020	Villagers including 22 people	UMO 020	3+090 RHS	Approved	Completed
36	MO06	Extension of road improvement by 30 m length of road of R ID UMO 21(i), as enabling access to the community hall & Dhamma school located at the end of the road	Villagers including 25 people	UMO 021 (i)	1+880	Approved	In Progress



SN	Package	Description	Request made by	Road ID	Location (Premises & Chainage)	Engineers Approval	Status (Completed/In Progress)
37	MO06	Saving 05 nos. of trees located at RHS 5+900, 5+902, 5+904, 5+905 and 5+906 would have been removed for shoulder construction at Road ID UMO 22	As instruction given by ESSO	UMO 022	From 5+900 to 5+906 RHS	Approved	Completed
38	MO06	Improvement of narrow curve as enabling turning heavy vehicle and improvement of house access located 2+390 LHS	As requested by the house owner	UMO 022	2+390 LHS	Approved	Completed
39		Preparation of concrete lined drain to prevent water flow onto private land located at the end of the lead away drain of the culvert at 3+241 RHS	As per the grievance was made by Mrs. Sriyani	UMO 062	3+0241 RHS	Approved	Completed
40		Provision of concrete lined drain to prevent water stagnation for newly built culvert at 1+945 LHS with access slabs	Mr. U.D.M. Sudubanda (land owner)	UMO 11	1+945 LHS	Approved	Completed
41	MO07	Request L Drain for School Boundary Wall.	Pallewela School Principle	MO 57	0+800 TO 1+000	Approved	In progressing

## Annexure 6 - Minutes of Progress Review Meeting

ADB-RDA iRoad 2 Investment Programme-BA-06 - Minutes of Progress Meeting No.16		
	a. Two paver being sharing with 3 contracts. QS to ensure no over-payment. (ONGOING)	AR/QS
	b. QS to ensure that there is no double payment for housekeepers for accommodation. The Specification already includes for housekeeping, no additional housekeeper should be paid for. (ONGOING)	RE/QS
	c. CR should target 30% physical progress to release 2 <sup>nd</sup> advance Payment Progress	CR
8.1	<b>Payment Application</b> -No issues.	
	a. Progress still hampered by Cash Flow. Commercial Bank confirmed that fund flowing freely through escrow account.	
9.	<b>Contractual</b>	
	<b>Variations</b> - 3	
9.1	<b>Claims Notified</b> - 8	
	a. Claim No.01 regarding terrorist activity, CCE to finalise assessments accordingly.	CCE
10.	<b>Any other business</b>	
	a. Commercial Bank have been in discussion with new investor to coordinate financing. No cash has arrived from new investor to date. TL stated that increase financing essential to this project. If progress failed to improved TL recommend termination in dry season.	Info
	b. ABC & Prime to be expedited in order to make maximum use of Paving Fleets. (ONGOING)	Info
	c. PD advised that ADB safeguards must not be violated under any circumstance. Any violation may result in closure of the entire iRoad programme. (ONGOING).	CR/RE
	d. CR to prepare variation request with supporting documents regarding dry masonry structure. CR looking for a suitable location (ONGOING).	CR
	e. Road Safety Furniture. Contractor designing. (ONGOING).	CR
	f. RE asked when CE's vehicle will be supplied, CR will replace by 20 <sup>th</sup> of November. (REPEAT 02)	CR
	g. Contractor proposed to use tunnel muck from Uma oya project. PD has written to the Project Director & waiting for response. Mahaweli Authority have denied supply the Tunnel muck to private contracts. PD will try again.	Info
	h. CR stated that Engineer's response for Claim No. 1, Claim No. 4 and Claim No 06 require responses. (ONGOING).	CCE
	i. PD advised CR to aware of environmental & weather conditions. Engineer staff to hold a special meeting to educate them on 16 <sup>th</sup> December. (REPEAT 01)	ES
11.	<b>Date of next meeting.</b> Next meeting will be between 7-14 of January 2020.	

Employer	 Name	 Designation	 Signature
Engineer	 Name	 Designation	 Signature
Contractor	 Name	 Designation	 Signature

## Annexure 7 - Project Director's request letter for NBRO report

 <p>මහාමාර්ග හා මාර්ග සංවර්ධන සහ බිහිසුණු සම්පත් සංවර්ධන අමාත්‍යාංශය</p> <p>බෙරුල්පානසොසන් ගමුත්තම් වීථි ආවේණිකුත්ති ගමුත්තම් පෙරුමිනාවාසා ඛණ්ඩාංගය ආවේණිකුත්ති ආයතනය</p> <p>MINISTRY OF HIGHWAYS &amp; ROAD DEVELOPMENT AND PETROLEUM RESOURCES DEVELOPMENT</p>	<p>මාර්ග සංවර්ධන අධිකාරිය</p> <p>වීථි ආවේණිකුත්ති ආයතනය</p> <p>ROAD DEVELOPMENT AUTHORITY</p>	<p> <b>Road</b></p> <p>මගේ අංකය: _____</p> <p>තනතුරු ක්‍රියා: _____</p> <p>My No. _____</p> <p>ඔබේ අංකය: _____</p> <p>පැයුම් ක්‍රියා: _____</p> <p>Your No. _____</p> <p>දිනය: _____</p> <p>Date _____</p>	<p>REIN/ADD/ROAD/BUVA/gen-08</p> <p>2019.10.01</p>
	<p>සංග්‍රහ ඒකාබද්ධ මාර්ග ආයෝජන වැඩසටහන - ෭ව පටුන</p> <p>இரண்டாம்-பகுதி ஒரேயாக்கித்தொண்டி, வீதி இரண்டாக்கித்தொண்டி - 7-ஆவது பகுதி</p> <p>SECOND INTEGRATED ROAD INVESTMENT PROGRAM- UVA PROVINCE</p> <p>386, "Gangasiri" Gernunu Mawatha, Bindunuwewa, Bandarawela, Sri Lanka</p>		

වික්‍රමේ සිද්ධාතී,  
පාණින හෝරහසිද්ධි පරික්ෂණය කොට  
වික්‍රමේ කාර්යාලය,  
බදුල්ල.

ರೋಗಿಗಳಿಗೆ ಆರೋಗ ಕಾಯಕರಣ ಬಳಸಿದಂತಹ ೭೨೦ ಲಕ್ಷಕ್ಕೂ ಹೆಚ್ಚಿನವರು ಇದ್ದರಾದರೂ ಇದು ಅಪಾಯದಿಂದ ರಕ್ಷಿಸಲು ಅನರ್ಹವಾದ ಸಾರ್ವಜನಿಕ ಆರೋಗ್ಯ  
 ವೈ ಲ್ಯವು ಆದ್ದರಿಂದ ಅನಿರೀಕ್ಷಿತವಾದ ಸಂದರ್ಭಗಳಲ್ಲಿ ಅನುಕೂಲವಾಗಿರಬಹುದು. ಆದರೆ ಇದು ಅನಿರೀಕ್ಷಿತವಾಗಿರಬಹುದು. ಆದರೆ ಇದು ಅನಿರೀಕ್ಷಿತವಾಗಿರಬಹುದು. ಆದರೆ ಇದು ಅನಿರೀಕ್ಷಿತವಾಗಿರಬಹುದು.  
 (HUSA-069) ಸಾರ್ವಜನಿಕ ಆರೋಗ್ಯ ವೈ ಲ್ಯವು ಆದ್ದರಿಂದ ಅನಿರೀಕ್ಷಿತವಾದ ಸಂದರ್ಭಗಳಲ್ಲಿ ಅನುಕೂಲವಾಗಿರಬಹುದು. ಆದರೆ ಇದು ಅನಿರೀಕ್ಷಿತವಾಗಿರಬಹುದು. ಆದರೆ ಇದು ಅನಿರೀಕ್ಷಿತವಾಗಿರಬಹುದು.

[illegible]

- 01).  $3.000 - 4.000$                       02).  $5 + 850 - 5 + 950$   
03).  $6 + 450 - 6 + 550$                 04).  $6 + 500 - 6 + 600$   
05).  $11 + 500 - 11 + 600$

[illegible]

**A.L.M. NIZAR**  
Project Director  
Integrated Road Investment Programme  
Uva Province  
Road Development Authority  
166, Ganga Shri, Gemunu Mawatha  
Bindunuwewa, Bandarawela

- |  |                    |
|--|--------------------|
| 1. ප්‍රාදේශීය ලේකම්, පුත්තලම                                 | - 000, දු. 000-000 |
| 2. ප්‍රාදේශීය ලේකම්, පුත්තලම සංවර්ධන අධ්‍යක්ෂ, මහලක්ෂ්මි     | - 000, දු. 000-000 |
| 3. විධායක ඉංජිනේරු, මහලක්ෂ්මි සංවර්ධන අධ්‍යක්ෂ, පිල්වෙල      | - 000, දු. 000-000 |
| 4. කළමනාකරු - (PBC-CEA) IV මණ්ඩලය                            | - 000, දු. 000-000 |
| 5. විධායක ඉංජිනේරු - (PBC-CEA) IV පිල්වෙල                    | - 000, දු. 000-000 |
| 6. විකුණුම් කළමනාකරු - KUMUTHU ENGINEERING SERVICES (BA-000) | - 000, දු. 000-000 |

[illegible]



## NATIONAL BUILDING RESEARCH ORGANISATION


99/1, Jawahar Road, Sri Lanka Phone : 0112588946 Mail : nbro@sltnet.lk

VAT: 409051707-7000

NBT : 409051707 - 9000

## Suspended Tax Invoice

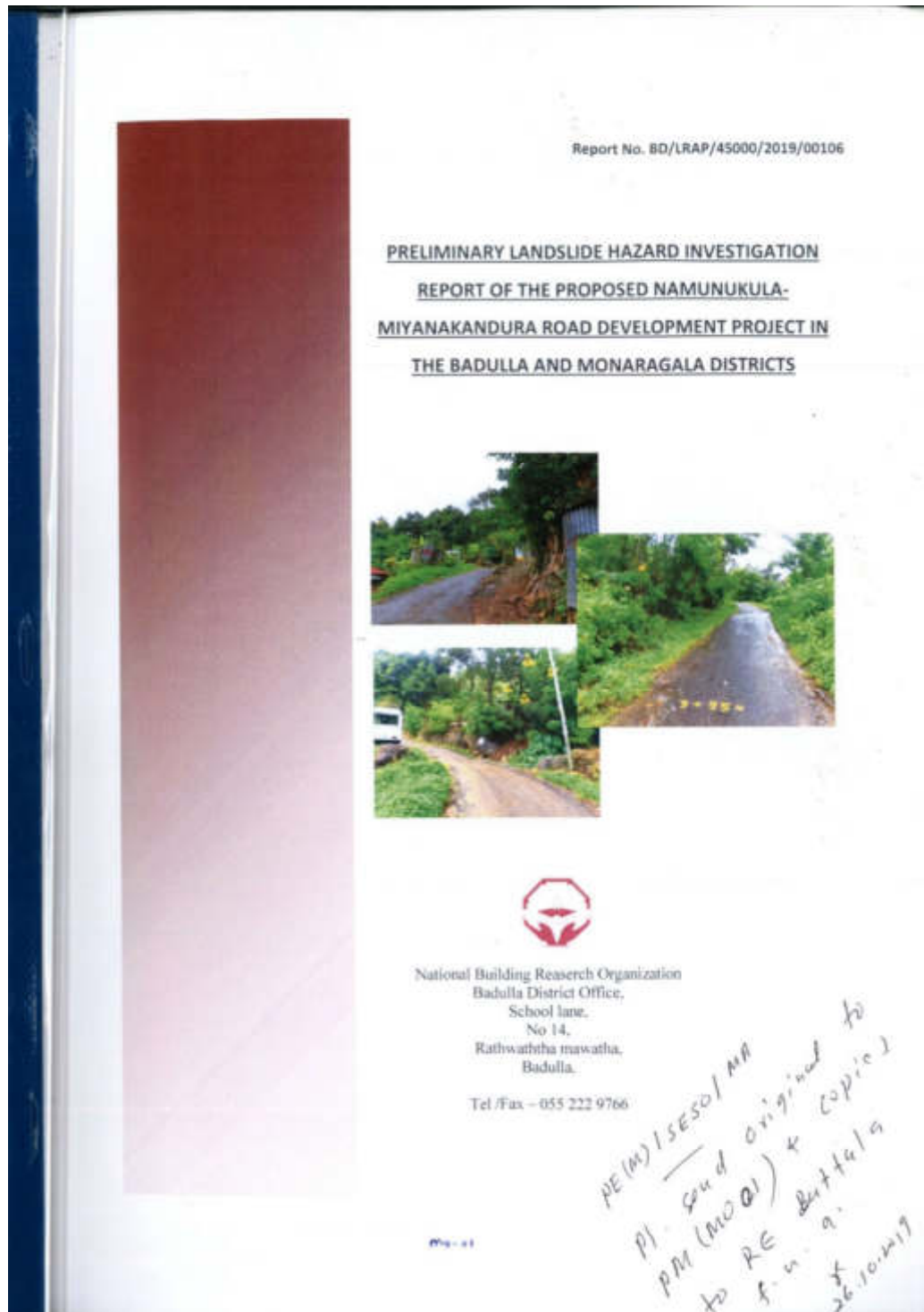
Our SVAT No : SVAT002480

Our SVAT No : SVA1000680		Invoice Date 11.10.2019		Serial No BD-LRAP-65000-2019-00122	
Customer Konnathi HCM Engineering Joint Venture Project Manager 595, Nawala Road, Rajagiriya VAT No : 101096424-7000 SVAT No : 11247					
Name of the Project Akiriya -Madolsima Road		Invoice No BD-1564			
Partner Ref :					
Description :		Quantity	Unit Rate	UOM	Price
Consultancy Charges		1	150,000.00	Unit	150,000.00
Transport		100	60.00	Cost	6,000.00
NBRO Overhead		1	23,400.00	Cost	23,400.00
		Net Total			179,400.00
		NBT 2%			3,588.00
		Grand Total			182,988.00
		SUSPENDED VAT 15%			27,448.20
		Total Value of the supply			210,436.20
Prepared By :		Payment to be made being			
Authorised Signature : 					

Cheques in favour of NATIONAL BUILDING RESEARCH ORGANISATION and crossed "AC Payee"

INTERNATIONAL BUILDING RESEARCH ORGANIZATION  
FINANCE DIVISION  
99/1, JAWATTA ROAD,  
COLOMBO 05

Annexure 8 - NBRO report for Namunukula Miyanakadura road (UMO110)



PRELIMINARY LANDSLIDE HAZARD INVESTIGATION REPORT OF THE PROPOSED  
NAMUNUKULA-MIYANAKANDURA ROAD DEVELOPMENT PROJECT IN THE BADULLA AND  
MONARAGALA DISTRICTS

Investigated and Report Prepared by;

N.K.Weerasekara	-	Geologist
W.M.S.H.Barammane	-	Geologist

October 22<sup>nd</sup>, 2019



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## 1.0 INTRODUCTION

### 1.1 Background

The Road Development Authority (RDA) is implementing an I-Road project to develop several rural/inter village roads under the Asian Development Bank's funding. This project includes the stabilization of landslides and slope failures along several selected roads. The National Building Research Organisation (NBRO) has been requested to investigate the sites affected by landslides or slope failures along the selected roads and give guidelines to design and implementation of stabilization measures.

The Director, I-Road project -Badulla, requested by his letter no RDA/ADB/iROAD II/UVA/Gen-388 dated 19/09/2019 to investigate a selected area (by them) regarding the landslide/slope stability problems of Namunukula-Miyanakandura road development project. Then a team of geologists in the NBRO investigated the proposed site on 11/10/2019 with the guidance of Mr. K.R.S.Kahatapitiya, Assistant Residential Engineer of the project and Mr. H.M.H.B.Herath, Design Engineer, AMSK constructions. This investigation was done fundamentally, in order to evaluate the predisposition of landslides / mass movements in and around the selected area and also, the potential of land instabilities due to development of the proposed project components. This report was prepared based on the data / observations gathered during the site inspection and the written / verbal information provided by the client.

### 1.2 The Location

The area around the chainage 3+700 has been identified as a critical location from the slope stability point of view by the client and requested for adequate mitigation measures. The NBRO team noticed that, majority of the road is laid on a paleo landslide deposit between 3+550 to 3+750 chainages and the adjacent parts are laid on residual soil and rock slopes.

GPS coordinate at chainage 3+750 - N 06.86666°, E 81.12203° (WGS 84)



Figure 1: Google map of the investigated area

### 1.3 Limitations

Determination of the geo-technical properties of soil overburden and bed rock beneath the proposed structures, by means of the representative sampling and in-situ field testing is beyond the scope of this investigation. As well as preparation of a site specific comprehensive geological map of the area is a different task. Therefore, the 1:100,000 scale geological maps published by the Geological Survey and Mines Bureau was used to the interpretation of geological phenomenon in and around the proposed project areas.

The mitigation measures mentioned in this report are only conceptual ideas based on visual observations and our experience. In order to decide and design the most suitable mitigation method, it is better to carry out detailed geotechnical studies and stability analysis in every individual site.

## 2.0 FIELD OBSERVATIONS.

The inspected road is a tar paved old road and due to poor surface water management and lack of maintenance, many locations had been destabilized. Around the location of chainage 3+700, an old landslide deposit could be identified with considerable amount of water seepages. As well as the road is laid on colluvium deposit at that particular area. Various sized rock boulders are located on the surface as well as embedded in the soil overburden. Few houses are located beside the road and a recent cut slope failure could be observed behind one of the houses at the upper slope of the road. The slope gradient at the colluvium deposit varies from 10°-30°.

The road has been constructed mostly on residual slopes (20°-40°) at adjacent areas (towards Namunukula from chainage 3+550 and towards Miyanakandura from chainage 3+750). The thickness of residual overburden of reddish brown colour sandy silty soil is about 1-2 meters. However, the majority could be classified as dip slope. Therefore, wedge failures and slope failures are expected with the unstable road cuts.



Figure 2, 3: photographs at chainage 3+600.



Figure 4: cutting failure occurred closer to the chainage 3+600

### 3.0 RECOMMENDATIONS

#### 3.1 General Recommendations

- All site preparation, design and construction work should be done under supervision of a qualified geotechnical personal.
- The maximum height of a cut should be 2 m according to the site conditions and cuts and/or fills more than this depth should definitely be retained using suitable type of retaining structures.
- Proper erosion control measures (turfing, rubble pitching and concreting) should be implemented to all exposed surfaces to minimize erosion. Concrete lined surface drainage (side drains) system should be constructed to remove rain water down the slope. Drains along roads should be carefully controlled by locating appropriate culverts or similar structures. It should be clearly understood that water plays major role in slope instabilities as pore water pressure reduces the shear strength of the soil mass while increasing the weight.
- All site preparation and construction work should be carried out during a dry period.
- All the filling should be properly compacted.

#### 3.2 Site Specific Recommendations

Based on the surface observations and geological features, the following mitigation options are proposed to minimize the future failures.

- It is highly necessary to direct the storm water as well as seepage water to natural streams while reducing the infiltration specifically around the 3+700 chainage (landslide deposition). To fulfil that requirement, concrete lined surface drainage system (especially side drains) should be implemented with appropriate capacity along with properly designed culverts.
- Cutting and filling should be minimized as much as possible and if required, blasting should be done with minimum vibration.
- To minimize the wedge and slope failure threat along the cut slopes, it is recommended to maintain cuts as berms (maximum height of a berm - 2m) with maximum 50° slope angle. Loose rock blocks/boulders and soil layers should definitely be removed while preparing the cut slopes.

#### 3.3 Monitoring the Sustainability of Applied Mitigation Measures

As certain amount of instability is associated with above roads, frequent monitoring of slopes is essential for maintaining the sustainability of applied rectification measures. Monitoring the water flow in the constructed drainage system, during the periods of heavy rain, is essential. Observations should be made in the upper part of the slope to identify any locations of seepage to understand whether any further surface or subsurface drainage is required. Any clogging of drains needs to be cleared immediately and damages to the drainage system needed to be repaired promptly. Any unusual instability features and/or slope movements, if observed, needs to be mitigated with appropriate remedial actions.



Prepared by: N.K Weerasekara (Geologist)

W.M.S.H Barammane (Geologist)

Recommended By:

  
District Officer,  
Landslide Research and Risk Management Division,  
National Building Research Organization,  
Badulla

District officer  
Badulla District Office  
Landslide Research and Risk Management Division  
National Building Research Organization  
Ministry of Disaster Management

## Annexure 9 - Sample complaint registry – MO03

COMPLAINT REF. No.	DATE OF COMPLAINT/ REQUEST/ SUGGESTION	MODE (REQ./SUG./ COM.)	Grievance received by (RD/APIC/ Complaint Box/Project Manager etc)	NATURE OF THE COMPLAINT/REQUEST/ SUGGESTION MADE	NAME OF THE ROAD	ROAD ID No.	DETAILS OF THE COMPLAINER	DATE OF ATTENDENT	STATUS OF ACTION TAKEN				ACTION TAKEN	FEEDBACK OF PERSON	REMARKS
									SOLUTION AGREED	SOLUTION IN PROGRESS	ACTION COMPLETED				
05/12/2019	Request	ESO		A 200-m concrete leaderway is requested to discharge water from culvert.	Lagangala road to bogaswewa	U10 029	Dr. Pinnawala	05/12/2019	yes			proposed to construct leaderway, but the leaderway will not be built in concrete as per road is a paved road, GRD approval will be obtained			
23/12/2019	Request	Site Engineer		Request removed waste pipe to Damulodaya Passara to bogaswewa roadless road.	Lagangala road to bogaswewa	U10 029	Secretary, Pinnawala	24/12/2019	yes			GRD approval will be obtained			
26/12/2019	Request	Site Engineer		Request to raise the level of Causeway and two new culvert.	Lagangala-Damulodaya road	U10 030	Incumbent, Uva		yes			CH-31291 not constructed new culvert CH-41530 not constructed new culvert instead of building a cross drain CH-31570 reduce the angle of causeway			



## 014

2018. 11. 29.

மேலூர்.

**මාර්ගය ඉදිකිරීම සම්බන්ධවයි.**

ආනව යොදා ඇති මාර්ගයේ නව ඉදිකිරීම්වලදී ප්‍රධාන මාර්ගය මීටර් 06 ක් දක්වා පමාණයට වැඩි නිමකර දීමට ප්‍රදේශවාසී ජප මඩබ්මාගෙන් ඉල්ලා සිටිමි.

හම්බන්තොට නගරය , උද්භිත උද්‍යානය , කුරුඳු උයන , සෂ්පීර් උද්‍යානය , උණුවිය උල්පත් යන ස්ථාන වෙත යාමට ඇති පිටිපුම් මාර්ගය මෙය වේ. ඉදිවෙමින් පවතින හයිවේ මාර්ගයේ ද්‍රව්‍ය ප්‍රවාහනය දිනපතා සිදුවේ. මේ නිසා දිනපතා විශාල රථවාහන (බර වාහන) ප්‍රමාණයක් ගමන් කෙරේ.

තවද පාසල් දරුවන් 1600 ක් හා ELS සමාගමට සේවය සඳහා ගමන් කරන ශ්‍රමිකයන් හා වාහන නිතර මෙකී මාර්ගයේ ගමන් කරති. එකී අපහසුතා මින් මහගරු පදිංචියෙන් ආරක්ෂාව මින් තහවුරු වන බව ද දන්වා සිටිමි.

ဗုဒ္ဓေါလံဇိတ်

*(Handwritten signature)*

පී. ඒ. පර්මිට් ප්ලස් ආයතන  
 මාර්ග සංචාරක 2018/11/29  
 මාර්ග - 149/B  
 ප්ලස් ප්ලස් ප්ලස් ප්ලස්  
 ප්ලස් ප්ලස් ප්ලස් ප්ලස්

പി. വി. കിയാൾ  
 ഫസ്താൻ പ്രാദേശിക ശ്രേണി

No: _____		Date: ____/____/____	
අ.අ	නම	ලිපිනය	අත්සන
1.	127 වැනි පාර	203 වැනි පාර, පාලම	
2.	ම. සිංහ රාමු	ම. 26, පාලම	
3.	අ.ප.ප. සමිති	ම. 338, පාලම, පාලම	
4.	S. ඩී. ඩී. ඩී.	පාලම, පාලම, පාලම	
5.	E. පාලම	ම. 164, පාලම, පාලම	
6.	P. පාලම	පාලම, පාලම, පාලම	
7.	පාලම	178, පාලම, පාලම	
8.	පාලම	71, 700, පාලම	
9.	W. පාලම	පාලම, පාලම, පාලම	
10.	W. පාලම	617, පාලම, පාලම	
11.	W. පාලම	ම. 3176, පාලම, පාලම	
12.	W. පාලම	ම. 140, පාලම, පාලම	
13.	W. පාලම	ම. 1501, 700, පාලම	
14.	W. පාලම	ම. 59, පාලම, පාලම	
15.	H. පාලම	ම. 294, පාලම, පාලම	
16.	W. පාලම	ම. 33, පාලම, පාලම	
17.	S. පාලම	ම. 238, පාලම, පාලම	
18.	W. පාලම	ම. 244, පාලම, පාලම	
19.	W. පාලම	ම. 119, පාලම, පාලම	
20.	W. පාලම	ම. 9017, පාලම, පාලම	
21.	L. පාලම	ම. 131, පාලම, පාලම	
22.	H. පාලම	පාලම, පාලම, පාලම	
23.	K. පාලම	" " "	
24.	W. පාලම	පාලම, පාලම, පාලම	
25.	R. පාලම	පාලම, පාලම, පාලම	
26.	A. පාලම	පාලම, පාලම, පාලම	
27.	W. පාලම	පාලම	
28.	K. පාලම	" " "	
29.	I. පාලම	" " "	
30.	P. පාලම	" " "	
31.	H. පාලම	739, පාලම, පාලම	



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අංක	නම	ලිපිනය	අත්සන
32	N. K. මුහුණ පිහිටි	නං. 165, මහල මහල, මොණරාගල	Rishi
33	Y. මුහුණ පිහිටි	නං. 20, මහල මහල, මොණරාගල	Rishi
34	A. G. J. මහල මහල	නං. 46, මහල මහල, මොණරාගල	Rishi
35	M. මුහුණ පිහිටි	නං. 83, මහල මහල, මොණරාගල	Rishi
36	K. T. D. මුහුණ පිහිටි	නං. 20, මහල මහල, මොණරාගල	Rishi
37	H. A. P. මුහුණ පිහිටි	නං. 66/3, මහල මහල, මොණරාගල	Rishi
38	G. මුහුණ පිහිටි	නං. 46, මහල මහල, මොණරාගල	Rishi
39	U. G. මුහුණ පිහිටි	නං. 46, මහල මහල, මොණරාගල	Rishi
40	W. මුහුණ පිහිටි	217, මහල මහල, මොණරාගල	Rishi
41	K. K. මුහුණ පිහිටි	නං. 20, මහල මහල, මොණරාගල	Rishi
42	M. K. මුහුණ පිහිටි	නං. 40, මහල මහල, මොණරාගල	Rishi
43	M. K. මුහුණ පිහිටි	නං. 40, මහල මහල, මොණරාගල	Rishi
44	H. මුහුණ පිහිටි	නං. 94, මහල මහල, මොණරාගල	Rishi
45	A. M. මුහුණ පිහිටි	නං. 246, මහල මහල, මොණරාගල	Rishi
46	S. මුහුණ පිහිටි	106/2, මහල මහල, මොණරාගල	Rishi
47	W. H. J. P. මුහුණ පිහිටි	නං. 169/1, මහල මහල, මොණරාගල	Rishi
48	G. E. මුහුණ පිහිටි	නං. 177, මහල මහල, මොණරාගල	Rishi
49	M. මුහුණ පිහිටි	නං. 1539, මහල මහල, මොණරාගල	Rishi
50	A. S. මුහුණ පිහිටි	නං. 47/2, මහල මහල, මොණරාගල	Rishi
51	F. D. මුහුණ පිහිටි	නං. 43, මහල මහල, මොණරාගල	Rishi
52	R. මුහුණ පිහිටි	නං. 43, මහල මහල, මොණරාගල	Rishi
53	K. M. මුහුණ පිහිටි	නං. 274/A, මහල මහල, මොණරාගල	Rishi
54	S. K. මුහුණ පිහිටි	නං. 213, මහල මහල, මොණරාගල	Rishi
55	K. T. P. R. මුහුණ පිහිටි	නං. 40, මහල මහල, මොණරාගල	Rishi
56	A. V. G. මුහුණ පිහිටි	නං. 40, මහල මහල, මොණරාගල	Rishi
57	V. G. S. මුහුණ පිහිටි	නං. 211/1, මහල මහල, මොණරාගල	Rishi
58	H. A. මුහුණ පිහිටි	නං. 173, මහල මහල, මොණරාගල	Rishi
59	J. A. මුහුණ පිහිටි	නං. 174, මහල මහල, මොණරාගල	Rishi
60	D. M. මුහුණ පිහිටි	නං. 93, මහල මහල, මොණරාගල	Rishi
61	G. P. C. මුහුණ පිහිටි	නං. 65, මහල මහල, මොණරාගල	Rishi
62	H. L. A. මුහුණ පිහිටි	නං. 65, මහල මහල, මොණරාගල	Rishi



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අ.අ.	නම	ලිපිනය	අත්සන
63	M.C.C. වසන්ත	වහගම වහල්ලා පාර.	
64	M. ඩ. දක්ෂිණ ඉසර	වහගම " "	දක්ෂිණ
65	B. ඩ. සුරේෂ්	වහගම " "	සුරේෂ්
66	B. ඩ. සුරේෂ් වාසන	වහගම " "	යා
67	H.L. දිසානායක	වහගම " "	දිසානායක
68	C.S. ආනන්ද	වහගම වහල්ලා.	ආනන්ද
69	M.A.D. ආනන්ද	වහගම වහල්ලා.	ආනන්ද
70	H.A. වසන්ත දිසානායක	No 94-700 වහගම වහල්ලා	වසන්ත
71	A.G.D. වසන්ත වසන්ත	71/2, වහගම වහල්ලා, වහගම	
72	N.A. වසන්ත	25/300 " "	වසන්ත
73	A.D. වසන්ත	102 වහගම වහල්ලා	වසන්ත
74	M. වසන්ත වසන්ත වසන්ත	No 27, වහගම වහල්ලා, වහගම	වසන්ත
75	A.K. වසන්ත වසන්ත	වහගම වහල්ලා, වහගම	වසන්ත
76	K.K. වසන්ත	නො 369 වහගම වහල්ලා	වසන්ත
77	M.G.A. වසන්ත වසන්ත	211, වහගම වහල්ලා	වසන්ත
78	B.A. වසන්ත	30 වහගම වහල්ලා	වසන්ත
79	K. වසන්ත	28.80	වසන්ත
80	A.G. වසන්ත වසන්ත	D, 470, වහගම, වහගම, වහගම	වසන්ත
81	M.G.G. වසන්ත වසන්ත	No 21/1 700 වහගම, වහගම	වසන්ත
82	වසන්ත වසන්ත වසන්ත	No 21 700 වහගම වහල්ලා	වසන්ත
83	වසන්ත වසන්ත වසන්ත	No 179/2 82, වහගම, වහගම	වසන්ත
84	වසන්ත වසන්ත	" " "	වසන්ත
85	P. v. P. S. වසන්ත	වහගම වහල්ලා, වහගම වහල්ලා	වසන්ත
86	W.M. වසන්ත වසන්ත	වහගම, වහගම, වහගම, වහගම, වහගම	වසන්ත
87	W.L. වසන්ත වසන්ත	81 වහගම, වහගම, වහගම වහල්ලා	වසන්ත
88	H.A. වසන්ත වසන්ත	නො. 213 වහගම වහල්ලා වහගම	වසන්ත
89	H. වසන්ත වසන්ත	නො. 23/1 " "	වසන්ත
90	S. වසන්ත වසන්ත	නො. 311 වහගම වහල්ලා වහගම	වසන්ත
91	E.P. වසන්ත වසන්ත	නො. 102 " "	වසන්ත
92	J.G. වසන්ත වසන්ත	No 265 වහගම වහල්ලා	වසන්ත
93	T.M. වසන්ත වසන්ත	103 වහගම වහල්ලා, වහගම	වසන්ත
94	H. වසන්ත වසන්ත	266/13, වහගම වහල්ලා වහගම	වසන්ත

Atlas



No: _____		Date: ____/____/____	
අ.අ.	නම	ලිපිනය	අවසන්
95	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
96	W. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
97	IC. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
98	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
99	W. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
100	W.A. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
101	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
102	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
103	M.H. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
104	S.M. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
105	R.P. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
106	E.P. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
107	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
108	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
109	A.A. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
110	M.A.B. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
111	A.W.A. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
112	M.H. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
113	R.A. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
114	A. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
115	R.L. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
116	S.P.R. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
117	M. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
118	B.A. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
119	R.M.A. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
120	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
121	E.A. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
122	M.W. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
123	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
124	A.W. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.
125	W. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.	සේ. සේ. සේ. සේ.

No: _____		Date: ____/____/____	
අංක	නම	ලිපිනය	අත්සන
126	M.P. රත්නායක	රත්නායක - රත්නායක	2
127	L.P. විජේසේන	රෝ. 3/8 නොගල පොළ	12/8
128	M.D.L.S. වික්‍රමසිංහ	මහල මහල	21
129	Y.M.D. සේනාරත්න	අලුතපිටිය පාර, මහල පොළ	22
130	T. ඉන්ද්‍රාණි	" "	23
131	S.A. ලියනායක	ගල්කන්ද පොළ, මහල	24
132	J.M. සේනාරත්න	"පොළ" මහලකරුණකොටුව	25
133	NA පොළොව	153 පොළ පොළ, මහල	26
134	22 වික්‍රමසේන	මුලාගමුව, මහල	27
135	M.A. ප්‍රදීප් ප්‍රසාද	මහල පොළ පොළ	28
136	B.A. ප්‍රදීප් ප්‍රසාද	රෝ. 13/1 මහල පොළ	29
137	ව. ඩී. ඩී. ප්‍රදීප්	109/1 මහල පොළ	30
138	R.J.U.P. 7 ප්‍රදීප්	108. මහල පොළ	31



## Annexure 11 - Sample Joint inspection sheet-BA06

[illegible]



## Annexure 12 - Proposal of tree planting programme – MO03

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRILANKA  
MINISTRY OF HIGHWAYS AND ROAD DEVELOPMENT AND  
PETROLIUM RESOURCES DEVELOPMENT.



CONTRACT PACKAGE: RDA/ADB/1 ROAD-2(UVA)/NCB/MO-03

REHABILITATION/IMPROVEMENTS OF 70.03 KM OF RURAL ROAD IN THE  
MONARAGALA DISTRICT-CONTRACT MO 03 INCLUDING PERFORMANCE BASED  
MAINTENANCE FOR THREE YEARS

### PROPOSAL FOR TREE PLANTING PROGRAM



FUNDED BY : Asian Development Bank  
EMPLOYER : Road Development Authority  
CONSULTANT : Pyunghawa Engineering Consultants Ltd in Joint Venture with Consulting  
Engineers and Architects Associated (Pvt) Ltd,  
CONTRACTOR : Maga Engineering (Pvt.) Ltd



## Introduction

Proposed roads for rehabilitation and improvements in this contract package are spread over Thanamalvila and Sewanagala Divisional Secretariats divisions in Monaragala district of Uva Province in Sri Lanka. There are 70.03 Km of 21 roads for the improvement in this MO- 03 package.

This report was prepared to propose on the sapling planting program held at: - Rathabalagama junior school & we hope to conduct this planting program at 31st of October 2019.

The Tree planting program was design to compensate removal of trees for the road rehabilitation process. According to the ADB terms & Conditions Contractor should have to plant 1:3 ratio for the removed plants.

Up to now totally 04 nos. of trees have been removed due to road rehabilitation at MO 03 Package and the contractor should have replanted 12 saplings. However, this number shall be increased with progress of road construction. Accordingly, 50 nos. of saplings proposed to plant at the planting program.

## Details of the Program

Date: - 31/10/2019

Time: - 9.00 AM

Location:- Rathabalagama Junior School, Rathabalagama, Hambegamuwa

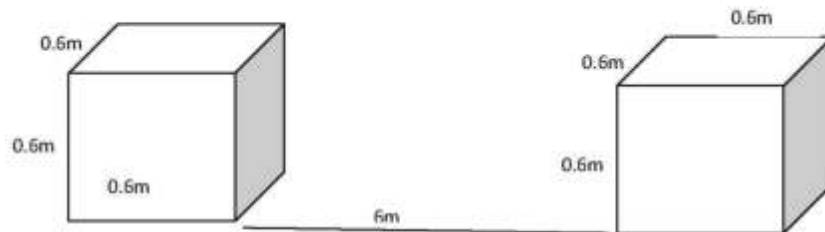
GPS Location :- 492253E, 722401N

## Selection of Sapling

Plants shall be identified according to the suitability for the climate of the specific area & environment. Accordingly, plants like Mango, Jambu, Coconut, Jack etc. shall be selected for replanting program.

#### Specification for sapling planting

- Size of pit 0.6m x 0.6m x 0.6m. and it should have larger diameter than the container of sapling



- Spacing between two plants should be 6m
- Compost in the school and top soil will be used
- Wooden fence with supporters shall be needed
- Minimum one-year-old healthy saplings should be used
- Each plant will be tagged

#### Maintenance

Protecting and maintaining work will be done by the students under the supervision of contractor for a 01-year period.

Each 50 plants will be handed over to the 50 students in the School "Pariara Niyamu" Society. Every plant will be hang the tag, who is the caretaker of the plant.

Plant maintenance according to the Watering, fencing and weeds removing will be done by Student who is the caretaker of the plant.

Replanting dead and weak trees shall be done by the contractor in the maintenance period.

### Monitoring

Frequently Plant monitoring and maintenance will done by the student of the School.

Numbered tree tag shall be installed on each plant and the details shall be recorded accordingly the tag.

Monitoring will be done by contractor and required maintenance and management practices will be apply.

**Plant log book:** Details will be recorded in a log book.

### Format for maintenance of planted trees (Growth Record sheet):

Plant details					Maintenance period		
Plant No	Date	Plant Name	Planted place	Height/ cm	Observation 1	Observation 2	Remarks

## Annexure 13 - Sample Tree Planting Report – MO02



**TUDAWE BROTHERS (PVT) LTD.**  
ENGINEERS & CONSTRUCTORS

505/2, Elvingala Mawatha, P.O. Box 26, Colombo 5, Sri Lanka  
Tel : +94 11 2368431, +94 11 2368434 Fax : +94 11 2503522  
E-mail : info@tudawe.com Web : www.tudawe.com

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Resident Engineer,  
PCA-CEA Joint Venture,  
Resident Engineer's office,  
10<sup>th</sup> Post, Medagama,  
Bibila.

21<sup>st</sup> October 2019  
Our Ref: TBL/J1130/i Road-2(UVA)/MO-02/1293/10/19

Dear Sir,

**SECOND INTEGRATED ROAD INVESTMENT PROGRAM  
REHABILITATION / IMPROVEMENT AND MAINTENANCE OF 63.29KM RURAL ROADS IN MONARAGALA  
DISTRICT IN THE UVA PROVINCE – PACKAGE -02  
CONTRACT NO: RDA/ADB/i ROAD-2(UVA)/NCB/MO-02**

**Progress of the Tree planting Programme as at 15<sup>th</sup> October 2019**

Please find enclosed herewith a report of the progress of the planting of Trees as at 15<sup>th</sup> October 2019 in accordance with the requirements of the specification.

The report includes,

1. Introduction,
2. Status of Tree removal & replanting,
3. Replanting Programmes conducted up to now,
4. Plant Record Sheet with GPS coordinates.

This is for your perusal & necessary actions please.

Yours faithfully,

TUDAWE BROTHERS (PVT) LTD



**B. P. Fernando**  
Contractor's Representative/Project Manager

Encl: Report of the progress of planting of Trees as at 15<sup>th</sup> October 2019.

CC: ES- PEC-CEA JV  
ARE – MO-02,  
CE – MO-02,  
DGM (i) - TBL.

---

Project office:  
RDA/ADB ROAD(UVA)/NCB/MO-02  
Madukolanawwa, Badakumbura  
Telephone/Fax: 095 2250515, Mobile(PM): 077 3478806  
E-Mail(PM) : Palituf@tudawe.com

PV 101/19



**ADB FUNDED REHABILITATION /IMPROVEMENTS OF 63.29 KM OF RURAL  
ROADS IN MONARAGALA DISTRICT**

*CONTRACT PACKAGE: RDA/ADB/ROAD 2 (UVA)/NCB/MO-02*

**Progress of Tree Planting Programme  
2019**



**Tudawe Brothers (Pvt) Ltd**



2

*"In a place without greenery, a learned person may not dwell"*



**Tree Planting Programme – 2019**  
**ADB FUNDED REHABILITATION /IMPROVEMENTS OF 63.29 KM OF RURAL**  
**ROADS IN MONARAGALA DISTRICT**

**CONTRACT PACKAGE: RDA/ADB/ROAD 2 (UVA)/NCB/MO-02**

**1. Introduction**

Rehabilitation/Improvement and Maintenance of 63.29 Km Rural Roads in Monaragala District (MO2) is one of the major project implementing by the Tudawe Brothers (Pvt) Ltd and planning to be completed within 2 years.

This project funded by ADB and this package MO2, proposed to be rehabilitate/improve 14 rural roads located in 4 Divisional Secretariat Divisions (DS) of the Monaragala District named Badalkumbura DS, Monaragala DS, Madulla DS, Siyambalanduwa DS.

Majority of these roads are currently governed by Badalkumbura Pradeshiya Sabha, Monaragala Pradesheya Sabha or PRDD. Some part of the few roads under the jurisdiction of Siyambalanduwa and Madulla PS.

This proposed roads travers through the rural areas of Monaragala District. During the construction, some identified trees required to be removed to obtain a minimum ROW or for the culvert construction works. All effort will be obtained to avoid removal of religious trees and cultural important trees and vulnerable trees throughout the ROW and minimum requirement of trees will be removed after obtaining approval from Engineer & Divisional Secretariat.

As same implementing replanting program with identified locations in 1:3 ratio will be organized.

The objective of this tree planting programme is to establish a maximum green cover substitute to the removed trees and aware the public, workers and project staff to the impotency of tree plant.

According to that we have to remove the identified trees from 14 road and this could affect to the environment by reducing shade in the road side, increase of carbon dioxide in the atmosphere, decreasing land stability and also trees help to retain water in soil.

Therefore, the project decided to replant the trees 1:3 ratio in identified locations within the road and selected lands closed to the road as per the table attached.

1<sup>st</sup> programme conducted in Madukotana Arawa Tunthala Primary School. Up to now we have conducted 5 programmes and 215 no's of trees planted at selected locations.

3

*"In a place without greenery, a learned person may not dwell"*

## 2. Status of Tree Removal and Re-planting

Road ID	Removal of Trees								Tree Planting			Planting locations	
	Total # of Trees to be removed	Total # of Trees removed up to last month	# of Trees Removed (This Month)	# of Trees Removed (Cumulative)	# of Timber logs handed over to rightful owner/Timber co-operations etc.	Balance Timber logs to be handed over	Taking over letter/recdpt obtained	# of Trees Saved	Total # of Plants to be planted	# of plants planted	Balance d to be planted	Identified location	GPS Coordinates
UMD 147	28	28	00	28	28	00	Yes	00	84	84	0	available space nearby residents at 0-000 to 1-770	6.859049 81.261927
UMD 094	109	109	0	137	109	00	Yes	04	327	74	253	Tunhara Primary school	6.872344 81.367486
UMD 041	03	03	1	140	03	00	Yes	00	12	00	09	available space nearby residents	to be planted
UMD 116	04	04	0	144	04	00	Yes	00	12	00	12	available space nearby residents	to be planted
UMD 093	16	16	0	160	16	00	Yes	00	48	48	0	available space nearby	to be planted

4  
"In a place without greenery, a learned person may not dwell"

												residents	
UMD 058	03	0	03	163	03	00	Yes	0	09	09	0	available space nearby residents	to be planted
UMD 049	03	0	03	167	03	00	Yes	0	12	0	12	available at Vadumbura school	to be planted
UMD 144	13	0	13	180	13	00	Yes	0	39	0	39	available space nearby residents	to be planted
UMD 140	22	0	22	180	22	00	Yes	0	68	0	68	available space nearby residents	to be planted
UMD 010	29	0	29	180	29	00	Yes	0	87	0	87	available space nearby residents	to be planted
UMD 075	9	0	9	189	9	00	Yes	0	27	0	27	available space nearby residents	to be planted
UMD 106	107	0	0	189	0	00	No	0	321	0	321	available space nearby residents	to be planted
UMD 055	Not finalized	0	0	189	0	00	No	0	0	0	0	available space nearby residents	to be planted
Total	346	160	80	189	239	0	-	-	1046	215	828	-	-

5  
"In a place without greenery, a learned person may not dwell"

**Programmes conducted:**

**Programme 1**

Date of conducted: 13<sup>th</sup> February 2019 Time: 9.30 am

Starting Location: Madukotan Arawa Tunthala Primary School ground.

No of trees Planted: 46

**Programme 02**

Date of conducted: 21<sup>st</sup> March 2019 Time: 9.30 am

Starting Location: Madukotan Arawa Helatunthala Punsisigama Road. 0+000 to 1+ 770

No of trees Planted: 30

**Programme 03**

Date of conducted: 22<sup>nd</sup> May 2019 Time: 9.00 am

Starting Location: Madukotan Arawa Helatunthala Punsisigama Road, PS Playground and Aththalamulla Road.

No of trees Planted: 38

**Programme 04**

Date of conducted: 26<sup>th</sup> September 2019 Time: 8.30 am

Starting Location: Udangoda Primary School

No of trees Planted: 53

**Programme 05**

Date of conducted: 13<sup>th</sup> October 2019 Time: 8.30 am

Starting Location: Nakkala Passara Road reservations from Nakkala Junction to Madukotarawa Junction and

No of trees Planted: 48

**Proposed locations to be planted:**

Location	No of plants	Plant Species
UMO 049 Road side and Wadikumbura Maha Vidyalaya ground	100	Kumbul, Ehala, Nelli
UMO 035 Kolonwinna Road side and Kolonwinna Primary school	150	Kumbuk, Ehala, Nelli, Teak
UMO 140 Road side and Bohitiya Primary School	200	Jack, Ehala, Nelli, Kumbuk
<b>Total</b>	<b>450</b>	

#### Selection of Trees:

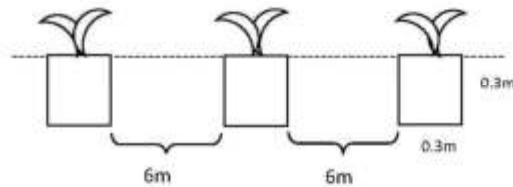
Plants to be identified according to the suitability for the climate of the area.

#### Types of trees identified to replant:

1. Ehala
2. Nelli
3. Kumbuk
4. Teak
5. Jack
6. Mahogani
7. Siyambala

#### Tree Planting:

- 9'x 6' size plant containers use for planting in selected areas. (12 month age)
- Maximum pit size: 0.3m x 0.3m x 0.3m
- Spacing: 6m
- Top soil and compost.
- Fencing
- Labour



#### Maintenance:

Protecting and maintaining work will be done by the contractor for a 3-year period. Watering, fencing, weeds removing, replanting for the dead trees will be done. Wooden fence will be used for protecting the trees in required locations.

GPS coordinates will be taken to use for the identification of plants. Records will be maintained of each tree for the three years period.

Maintenance plan will be introduced to the site staff and Environmental and Safety Officer to coordinate all maintenance works.

#### Steps to be considered in maintaining the plants:

1. Watering
2. Weeds removing and protecting fence repairing
3. Composting
4. Replacing dead trees

7

*"In a place without greenery, a learned person may not dwell"*

#### Plant log book:

All planted trees and its status are recorded in a log book

Details of the planted trees are attached. (Attachment I)

#### Photographs





## Attachment 1:

SECOND INTEGRATED ROAD INVESTMENT PROGRAMME REHABILITATION/IMPROVEMENT AND MAINTANANCE OF 63.29 KM RURAL ROADS IN MONARAGALA DISTRICT IN THE UVA PROVINCE – PACKAGE -02 CONTRACT NO: RDA/ADB/I ROAD-2(UVA)/NCB/MO-02					
Plant Record Sheet					
Plant No	Date	Plant Name	Planted place	GPS Coordinates	
				N	E
1	13.02.2019	Nelli	Tunthala Primary School	6.872344	81.267469
2	13.02.2019	Nelli	Tunthala Primary School	6.872343	81.267550
3	13.02.2019	Nelli	Tunthala Primary School	6.872323	81.267536
4	13.02.2019	Nelli	Tunthala Primary School	6.872314	81.267544
5	13.02.2019	Nelli	Tunthala Primary School	6.872279	81.267558
6	13.02.2019	Nelli	Tunthala Primary School	6.872277	81.267601
7	13.02.2019	Nelli	Tunthala Primary School	6.872273	81.267625
8	13.02.2019	Nelli	Tunthala Primary School	6.872244	81.267657
9	13.02.2019	Nelli	Tunthala Primary School	6.872226	81.267663
10	13.02.2019	Nelli	Tunthala Primary School	6.872206	81.267669
11	13.02.2019	Nelli	Tunthala Primary School	6.872167	81.267665
12	13.02.2019	Nelli	Tunthala Primary School	6.872158	81.267668
13	13.02.2019	Nelli	Tunthala Primary School	6.872160	81.267701
14	13.02.2019	Nelli	Tunthala Primary School	6.872131	81.267697
15	13.02.2019	Nelli	Tunthala Primary School	6.872062	81.267711
16	13.02.2019	Nelli	Tunthala Primary School	6.872064	81.267723
17	13.02.2019	Ehela	Tunthala Primary School	6.872097	81.267735
18	13.02.2019	Ehela	Tunthala Primary School	6.872073	81.267755
19	13.02.2019	Ehela	Tunthala Primary School	6.872316	81.267278
20	13.02.2019	Ehela	Tunthala Primary School	6.87228	81.267308
21	13.02.2019	Ehela	Tunthala Primary School	6.872209	81.26732
22	13.02.2019	Ehela	Tunthala Primary School	6.872193	81.267317
23	13.02.2019	Ehela	Tunthala Primary School	6.872166	81.267318
24	13.02.2019	Ehela	Tunthala Primary School	6.872148	81.267314
25	13.02.2019	Ehela	Tunthala Primary School	6.872156	81.267322
26	13.02.2019	Ehela	Tunthala Primary School	6.872103	81.267346
27	13.02.2019	Ehela	Tunthala Primary School	6.872082	81.267365
28	13.02.2019	Ehela	Tunthala Primary School	6.872071	81.267353
29	13.02.2019	Ehela	Tunthala Primary School	6.872044	81.267354
30	13.02.2019	Ehela	Tunthala Primary School	6.872031	81.267355
31	13.02.2019	Ehela	Tunthala Primary School	6.872015	81.267372
32	13.02.2019	Ehela	Tunthala Primary School	6.871997	81.267355
33	13.02.2019	Ehela	Tunthala Primary School	6.871971	81.267347
34	13.02.2019	Ehela	Tunthala Primary School	6.871929	81.267349
35	13.02.2019	Ehela	Tunthala Primary School	6.871912	81.267354
36	13.02.2019	Ehela	Tunthala Primary School	6.871877	81.267372
37	13.02.2019	Ehela	Tunthala Primary School	6.871852	81.26737
38	13.02.2019	Ehela	Tunthala Primary School	6.871827	81.267382
39	13.02.2019	Ehela	Tunthala Primary School	6.871805	81.267303
40	13.02.2019	Ehela	Tunthala Primary School	6.871774	81.267394

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41	13.02.2019	Ehela	Tunthala Primary School	6.871751	81.26741
42	13.02.2019	Ehela	Tunthala Primary School	6.871737	81.267415
43	13.02.2019	Ehela	Tunthala Primary School	6.871799	81.267428
44	13.02.2019	Ehela	Tunthala Primary School	6.871690	81.267416
45	13.02.2019	Ehela	Tunthala Primary School	6.871669	81.267422
46	13.02.2019	Ehela	Tunthala Primary School	6.859073	81.262034
47	21.03.2019	Ehela	UMO 147 selected lands	6.859049	81.261927
48	21.03.2019	Ehela	UMO 147 selected lands	6.859054	81.261881
49	21.03.2019	Nelli	UMO 147 selected lands	6.859033	81.261775
50	21.03.2019	Jack	UMO 147 selected lands	6.859004	81.261721
51	21.03.2019	Jack	UMO 147 selected lands	6.858951	81.26157
52	21.03.2019	Ehela	UMO 147 selected lands	6.859088	81.261381
53	21.03.2019	Ehela	UMO 147 selected lands	6.859158	81.261869
54	21.03.2019	Jack	UMO 147 selected lands	6.859164	81.261759
55	21.03.2019	Jack	UMO 147 selected lands	6.859320	81.261760
56	21.03.2019	Nelli	UMO 147 selected lands	6.851987	81.261514
57	21.03.2019	Ehela	UMO 147 selected lands	6.859235	81.261504
58	21.03.2019	Nelli	UMO 147 selected lands	6.859266	81.261524
59	21.03.2019	Ehela	UMO 147 selected lands	6.859216	81.261351
60	21.03.2019	Jack	UMO 147 selected lands	6.859344	81.261271
61	21.03.2019	Nelli	UMO 147 selected lands	6.858488	81.260051
62	21.03.2019	Nelli	UMO 147 selected lands	6.858452	81.260094
63	21.03.2019	Nelli	UMO 147 selected lands	6.858582	81.25978
64	21.03.2019	Teak	UMO 147 selected lands	6.859498	81.257236
65	21.03.2019	Teak	UMO 147 selected lands	6.85950	81.257213
66	21.03.2019	Nelli	UMO 147 selected lands	6.859550	81.257139
67	21.03.2019	Nelli	UMO 147 selected lands	6.859649	81.257311
68	21.03.2019	Teak	UMO 147 selected lands	6.859727	81.257169
69	21.03.2019	Teak	UMO 147 selected lands	6.859792	81.257172
70	21.03.2019	Teak	UMO 147 selected lands	6.85978	81.257227
71	21.03.2019	Teak	UMO 147 selected lands	6.859866	81.257286
72	21.03.2019	Teak	UMO 147 selected lands	6.867802	81.254339
73	21.03.2019	Teak	UMO 147 selected lands	6.867806	81.25426
74	21.03.2019	Teak	UMO 147 selected lands	6.867813	81.25424
75	21.03.2019	Teak	UMO 147 selected lands	6.867818	81.254218
76	21.03.2019	Teak	UMO 147 selected lands	6.867854	81.254196
77	22.05.2019	Jack	Punsisigama Play Ground	6.866582	81.246321
78	22.05.2019	Jack	Punsisigama Play Ground	6.866585	81.246358
79	22.05.2019	Jack	Punsisigama Play Ground	6.866592	81.246476
80	22.05.2019	Jack	Punsisigama Play Ground	6.8666075	81.2463384
81	22.05.2019	Jack	Punsisigama Play Ground	6.86694	81.24622
82	22.05.2019	Jack	Punsisigama Play Ground	6.867083	81.2476
83	22.05.2019	Jack	Punsisigama Play Ground	6.866959	81.247574
84	22.05.2019	Jack	Punsisigama Play Ground	6.867076	81.24759
85	22.05.2019	Teak	Punsisigama Play Ground	6.867893	81.250414
86	22.05.2019	Jack	Punsisigama Play Ground	6.867893	81.250414

87	22.05.2019	Jack	Punsisigama Play Ground	6.867903	81.250499
88	22.05.2019	Jack	Punsisigama Play Ground	6.867758	81.25061
89	22.05.2019	Teak	Punsisigama Play Ground	6.864127	81.254094
90	22.05.2019	Teak	Punsisigama Play Ground	6.864209	81.254276
91	22.05.2019	Jack	Punsisigama Play Ground	6.864241	81.254287
92	22.05.2019	Jack	Punsisigama Play Ground	6.863442	81.2548411
93	22.05.2019	Jack	Punsisigama Play Ground	6.863521	81.254748
94	22.05.2019	Jack	Punsisigama Play Ground	6.863488	81.254838
95	22.05.2019	Jack	Punsisigama Play Ground	6.863591	81.254827
96	22.05.2019	Jack	Punsisigama Play Ground	6.863636	81.254695
97	22.05.2019	Jack	Punsisigama Play Ground	6.863664	81.254808
98	22.05.2019	Teak	Athlaamulla Road	6.863488	81.262796
99	22.05.2019	Teak	Athlaamulla Road	6.863477	81.262726
100	22.05.2019	Teak	Athlaamulla Road	6.86347787	81.2627269
101	22.05.2019	Teak	Athlaamulla Road	6.863385	81.262568
102	22.05.2019	Teak	Athlaamulla Road	6.863521	81.262621
103	22.05.2019	Teak	Athlaamulla Road	6.8635059	81.262584
104	22.05.2019	Teak	Athlaamulla Road	6.863543	81.262432
105	22.05.2019	Jack	Athlaamulla Road	6.863541	81.26243
106	22.05.2019	Jack	Athlaamulla Road	6.863534	81.262369
107	22.05.2019	Jack	Athlaamulla Road	6.8635094	81.262415
108	22.05.2019	Jack	Athlaamulla Road	6.863731	81.252516
109	22.05.2019	Ehela	Athlaamulla Road	6.863793	81.262726
110	22.05.2019	Ehela	Athlaamulla Road	6.863773	81.262676
111	22.05.2019	Nelli	Athlaamulla Road	6.863641	81.262907
112	22.05.2019	Nelli	Athlaamulla Road	6.863643	81.262898
113	22.05.2019	Nelli	Athlaamulla Road	6.8636121	81.262898
114	22.05.2019	Nelli	Athlaamulla Road	6.8635686	81.2628818
115	26.09.2019	Kumbuk	Udagangoda School	6.87273092	81.27821577
116	26.09.2019	Kumbuk	Udagangoda School	6.87269437	81.27826567
117	26.09.2019	Kumbuk	Udagangoda School	6.87263131	81.27829553
118	26.09.2019	Kumbuk	Udagangoda School	6.87257187	81.27831667
119	26.09.2019	Jack	Udagangoda School	6.87201014	81.27847337
120	26.09.2019	Jack	Udagangoda School	6.87207337	81.27847107
121	26.09.2019	Jack	Udagangoda School	6.8720054	81.27846054
122	26.09.2019	Jack	Udagangoda School	6.87198215	81.27845171
123	26.09.2019	Jack	Udagangoda School	6.87194339	81.27835299
124	26.09.2019	Jack	Udagangoda School	6.87194422	81.27827136
125	26.09.2019	Nelli	Udagangoda School	6.87208665	81.28002485
126	26.09.2019	Nelli	Udagangoda School	6.87209986	81.27999657
127	26.09.2019	Nelli	Udagangoda School	6.87216723	81.27998656
128	26.09.2019	Nelli	Udagangoda School	6.87214409	81.27995521
129	26.09.2019	Nelli	Udagangoda School	6.87210144	81.27995963
130	26.09.2019	Nelli	Udagangoda School	6.87226598	81.27984848

131	26.09.2019	Nelli	Udagangoda School	6.87228216	81.27983024
132	26.09.2019	Nelli	Udagangoda School	6.87233185	81.27981384
133	26.09.2019	Nelli	Udagangoda School	6.87234964	81.27968527
134	26.09.2019	Nelli	Udagangoda School	6.87238417	81.27969992
135	26.09.2019	Nelli	Udagangoda School	6.87239857	81.27964062
136	26.09.2019	Nelli	Udagangoda School	6.87235466	81.27952445
137	26.09.2019	Nelli	Udagangoda School	6.87239538	81.27952957
138	26.09.2019	Mahogani	Udagangoda School	6.87235541	81.27908269
139	26.09.2019	Mahogani	Udagangoda School	6.87242461	81.27903285
140	26.09.2019	Mahogani	Udagangoda School	6.87249395	81.27900487
141	26.09.2019	Nelli	Udagangoda School	6.87224305	81.27786198
142	26.09.2019	Nelli	Udagangoda School	6.87223512	81.27791761
143	26.09.2019	Nelli	Udagangoda School	6.87219706	81.27794871
144	26.09.2019	Nelli	Udagangoda School	6.87211219	81.27803282
145	26.09.2019	Nelli	Udagangoda School	6.8720723	81.27804515
146	26.09.2019	Nelli	Udagangoda School	6.87196611	81.27797001
147	26.09.2019	Ehela	Udagangoda School	6.87221876	81.27797001
148	26.09.2019	Ehela	Udagangoda School	6.87222425	81.27795751
149	26.09.2019	Ehela	Udagangoda School	6.87222189	81.27796224
150	26.09.2019	Ehela	Udagangoda School	6.87223351	81.27795084
151	26.09.2019	Ehela	Udagangoda School	6.87224602	81.27789518
152	26.09.2019	Ehela	Udagangoda School	6.8722636	81.27790531
153	26.09.2019	Ehela	Udagangoda School	6.87229196	81.27789497
154	26.09.2019	Ehela	Udagangoda School	6.87232281	81.2779067
155	26.09.2019	Ehela	Udagangoda School	6.87234218	81.27790586
156	26.09.2019	Ehela	Udagangoda School	6.87236098	81.27792071
157	26.09.2019	Ehela	Udagangoda School	6.87239041	81.27793782
158	26.09.2019	Ehela	Udagangoda School	6.87243581	81.27793782
159	26.09.2019	Ehela	Udagangoda School	6.87246253	81.27792464
160	26.09.2019	Ehela	Udagangoda School	6.87246921	81.27793437
161	26.09.2019	Ehela	Udagangoda School	6.87248431	81.27795378
162	26.09.2019	Ehela	Udagangoda School	6.87250613	81.27795229
163	26.09.2019	Ehela	Udagangoda School	6.87252151	81.27796767
164	26.09.2019	Ehela	Udagangoda School	6.8722907	81.27795502
165	26.09.2019	Ehela	Udagangoda School	6.87256026	81.2779995
166	26.09.2019	Ehela	Udagangoda School	6.87259045	81.27801384
167	26.09.2019	Kumbuk	Udagangoda School	6.87284173	81.27795551
168	13.10.2019	Siyambala	Nakkala - Passara Road	6.89662035	81.27169109
169	13.10.2019	Siyambala	Nakkala - Passara Road	6.89659799	81.27172695
170	13.10.2019	Siyambala	Nakkala - Passara Road	6.89669966	81.27173764
171	13.10.2019	Siyambala	Nakkala - Passara Road	6.89659215	81.27180351
172	13.10.2019	Siyambala	Nakkala - Passara Road	6.896292312	81.27024725
173	13.10.2019	Siyambala	Nakkala - Passara Road	6.896309703	81.27029482
174	13.10.2019	Siyambala	Nakkala - Passara Road	6.896324084	81.27032254
175	13.10.2019	Siyambala	Nakkala - Passara Road	6.896336264	81.27035813
176	13.10.2019	Siyambala	Nakkala - Passara Road	6.896354716	81.27037679
177	13.10.2019	Siyambala	Nakkala - Passara Road	6.89633319	81.27025546
178	13.10.2019	Siyambala	Nakkala - Passara Road	6.896312213	81.27028575
179	13.10.2019	Siyambala	Nakkala - Passara Road	6.896326634	81.27033599
180	13.10.2019	Siyambala	Nakkala - Passara Road	6.896357472	81.27037331

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181	13.10.2019	Siyambala	Nakkala - Passara Road	6.89626393	81.27334456
182	13.10.2019	Siyambala	Nakkala - Passara Road	6.89622711	81.27334216
183	13.10.2019	Siyambala	Nakkala - Passara Road	6.89630327	81.27335838
184	13.10.2019	Siyambala	Nakkala - Passara Road	6.89627498	81.27337314
185	13.10.2019	Siyambala	Nakkala - Passara Road	6.89626444	81.27336875
186	13.10.2019	Siyambala	Nakkala - Passara Road	6.89696546	81.2734788
187	13.10.2019	Siyambala	Nakkala - Passara Road	6.896928812	81.27355287
188	13.10.2019	Siyambala	Nakkala - Passara Road	6.897198792	81.27429438
189	13.10.2019	Siyambala	Nakkala - Passara Road	6.89712766	81.2743024
190	13.10.2019	Siyambala	Nakkala - Passara Road	6.89713629	81.27431558
191	13.10.2019	Siyambala	Nakkala - Passara Road	6.8974695	81.27628019
192	13.10.2019	Siyambala	Nakkala - Passara Road	6.897155471	81.2742707
193	13.10.2019	Siyambala	Nakkala - Passara Road	6.89711769	81.27426512
194	13.10.2019	Siyambala	Nakkala - Passara Road	6.89712853	81.27422472
195	13.10.2019	Siyambala	Nakkala - Passara Road	6.8974372	81.276204
196	13.10.2019	Siyambala	Nakkala - Passara Road	6.897443796	81.276227
197	13.10.2019	Siyambala	Nakkala - Passara Road	6.89746022	81.27617554
198	13.10.2019	Kumbuk	Nakkala - Passara Road	6.897108239	81.27427737
199	13.10.2019	Kumbuk	Nakkala - Passara Road	6.897141661	81.27430412
200	13.10.2019	Kumbuk	Nakkala - Passara Road	6.89711768	81.27427475
201	13.10.2019	Siyambala	Nakkala - Passara Road	6.897080948	81.27419467
202	13.10.2019	Siyambala	Nakkala - Passara Road	6.897069327	81.27415816
203	13.10.2019	Siyambala	Nakkala - Passara Road	6.89571369	81.27118376
204	13.10.2019	Siyambala	Nakkala - Passara Road	6.89567553	81.27123963
205	13.10.2019	Siyambala	Nakkala - Passara Road	6.89555977	81.27125515
206	13.10.2019	Siyambala	Nakkala - Passara Road	6.89555445	81.27122868
207	13.10.2019	Siyambala	Nakkala - Passara Road	6.89557343	81.27119043
208	13.10.2019	Siyambala	Nakkala - Passara Road	6.89558856	81.27115575
209	13.10.2019	Siyambala	Udagangoda Road	6.88811823	81.28005336
210	13.10.2019	Siyambala	Udagangoda Road	6.88800674	81.280176
211	13.10.2019	Kumbuk	Udagangoda Road	6.87479946	81.27653981
212	13.10.2019	Kumbuk	Udagangoda Road	6.874795081	81.27657556
213	13.10.2019	Kumbuk	Udagangoda Road	6.8751892	81.2785805
214	13.10.2019	Kumbuk	Udagangoda Road	6.874724317	81.27659018
215	13.10.2019	Kumbuk	Udagangoda Road	6.87471685	81.27666267

## Annexure 14 - Other training programmes conducted by the Contractors

S N	Package	Description	Resource person/ institute	Training Date	Number of participants	M	F
01	BA 01	Occupational Health & Safety Training Programme for Labour	Safety Manager -NEM	20/09/2018	70	60	10
02		Occupational Health & Safety Training Programme for staff	Safety Manager -NEM	23/11/2018	26	26	0
03		Firefighting training for staff & labour	Safety Manager -NEM	23/11/2018	31	21	10
04		Road safety awareness for Grade 3-5 School children and their parents in Senanigama primary School	Social, Gender & Resettlement Specialist-PIC06	23/11/2018	64	30	34
05		Conducted the Road Safety Awareness programme For Senanigama Nursery School's Staff & Parents	Deputy Environmental Manager-NEM	14/01/2019	21	08	13
06		Awareness of Environmental Management system.	DGM of Plant & compliance	14/12/2018	22	20	02
07		How to operate road construction machinery from safely	Area Safety instructor of CAT machinery	14/01/2019	79	78	01
08		Frist aid Training programme for staff & labour	Red Cross Association- Badulla	26/02/2019	30	29	01
09		HIV/AIDS Awareness programme For staff & labour	HIV/STD control Units - Badulla	29/03/2019	130	116	14
10		Occupational Health & Safety Training Programme &	SLAS EMS Audits team	13/06/2019	26	25	01

		awareness of Environmental management system					
11		Firefighting training for Security workers	Head of Operation – area , Rkna Lnka PVT (Ltd)	10/10/2019	25	25	0
12		HIV/AIDS Awareness programme For Community	HIV/STD control Units – Badulla & Mahiyanganaya	24/12/2019	124	112	12
01	BA02	Tool box meeting	PIC 06	2018/11/05			
02		Tool box meeting	PIC 06	2018/12/18			
03		Tool box meeting	PIC 06	2019/06/08			
04		Tool box meeting	PIC 06	2019/12/21	12	10	2
05		Road Safety and Environmental Awareness Programme	PIC 06	2019/03/08	40	19	21
06		Safeguard awareness programme	PIC 06	2019/11/22	25	20	5
01	BA03	Environmental and Social Awareness program	ES and SGRS	2019.11.28	Mr. Malaka Paranamanna-ES Mr. D. A. D. Ranjith-SGRS	31	7
1	BA-04	Tool Box meetings	-	2019.09.30	08	08	0
2		Tool Box meetings	-	2019.11.26	16	16	0
3		Fire drilling training	-	2019.12.19	48	43	5
4		Other Environmental and Social programmes	Environmental Specialist, and Social, Gender and resettlement Specialist	2019.10.23	44	42	2
5		Tool Box meetings	-	2019.09.20	12	11	01
6		Tool Box meetings	-	2019.09.20	12	11	01
7		Safety awareness meeting	-	2019.10.21	18	16	02
01	BA 05	Toolbox meeting-Importance of wearing PPE		2019.07.19	21	16	05
02		Environment and Site Safety awareness Program	PIC 06	2019.08.01	32	27	05
03		Tool box meeting		2019.09.03	22	22	00
04		Tool box meeting	PIC 06	2019.11.08	77	58	19



01	BA06	Environmental & Social Awareness Program	ES, SGRS	18/12/2019	33	31	2
01	BA 07	Tool box meetings	-	27.07.2018	20	20	-
02		Tool box meetings	-	15.08.2018	35	35	-
03		Tool box meetings	-	22.08.2018	42	42	-
04		Tool box meetings	-	29.08.2018	45	45	-
05		Tool box meetings	-	12.09.2018	44	36	8
06		Tool box meetings	-	19.09.2018	45	37	8
07		Tool box meetings	-	03.10.2018	54	46	8
08		Tool box meetings	-	26.10.2018	63	55	8
09		Tool box meetings	-	07.11.2018	65	57	8
10		Tool box meetings	-	19.12.2018	64	55	9
11		Tool box meetings	-	16.01.2019	71	55	16
12		Tool box meetings	-	28.02.2019	72	54	18
13		Tool box meetings	-	27.03.2019	73	55	18
14		Tool box meetings	-	08.04.2019	78	60	18
15		Tool box meetings	-	01.05.2019	77	59	18
16		Tool box meetings	-	08.05.2019	76	58	18
17		Tool box meetings	-	19.06.2019	70	58	12
18		Tool box meetings	-	31.07.2019	71	59	12
19		Tool box meetings	-	24.08.2019	58	47	11
20		Tool box meetings	-	24.09.2019	35	26	9
1	BA 07	HIV/AIDS Awareness Program-i	Dr. (Mr.) L. Siriwardhana (Consultant Venerologist) Badulla General Hospital  Mr. S.M. Shyamdeen Public Health Inspector STD/AIDS Control Unit. Badulla General Hospital	02.11.2018	238	169	69
2		HIV/AIDS Awareness Program-ii	Dr. (Mr.) L. Siriwardhana (Consultant Venerologist) Badulla General Hospital  Mr. S.M. Shyamdeen Public Health Inspector STD/AIDS Control Unit. Badulla General Hospital	16.09.2019	139	117	22
3		Road Safety and	S.I. Nawaratne	27.02.2019	68	30	38

		Environment awareness	OIC Traffic Haputhale Police Station.				
4		First-Aid Training Programme	Diyathalawa General Hospital	04.04.2019	37	30	07
01	BA 8	Tool Box Meetings	Staff /labour	20.03.2019	10	6	4
02		Tool Box Meeting	“	02.04.2019	12	6	5
03		Tool Box Meeting	“	03.04.2019	14	6	8
04		Tool Box Meetings	“	03.05.2019	14	7	7
05		Tool Box Meeting	“	04.05.2019	12	5	7
06		Tool Box Meeting	“	02.06.2019	08	6	2
07		Tool Box Meetings	“	01.07.2019	11	4	7
08		Tool Box Meeting	“	22.07.2019	16	7	9
09		Tool Box Meeting	“	16.08.2019	13	5	8
10		Tool Box Meetings	“	01.09.2019	11	3	8
11		Tool Box Meeting	“	08.10.2019	10	4	6
12		Tool Box Meeting	“	12.11.2019	14	5	9
13		Tool Box Meetings	“	22.11.2019	13	6	7
14		Tool Box Meeting	“	06.12.2019	12	6	6
15		Fire Drilling Training	“	28.12.2019	14	5	6
	MO01	HIV/AIDS Awareness Programme	Consultant Venereologist, STD, HIV/AIDS Unit, General Hospital, Monaragala	2019.03.14	89	68	21
		Road Safety Awareness Programme	Badalkumbura Police	2019.09.27	101	42	59
		Safeguard Awareness Programme	PIC	2019.11.04	42	36	6
		Tool Box	EN	2019.01.03, 10,16,22	27	20	7
		Tool Box	EN	2019.02.06, 13,19	23	17	6
		Tool Box	EN	2019.03.6,15,22	55	43	12
		Tool Box	EN	2019.04.3,10,22	42	31	11
		Tool Box	EN	2019.05.3,10,22	47	35	12
		Tool Box	EN	2019.06.04, 12,25	57	42	15

		Tool Box	EN	2019.07.05, 17,25	41	35	6
		Tool Box	EN	2019.08.11, 21	50	38	12
		Tool Box	SO	2019.09.06, 12,14	29	20	9
		Tool Box	SO	2019.10.08, 18,22,25,28	66	41	15
		Tool Box	CE / SO	2019.11.03, 15,27	67	52	15
		Tool Box	CE / SO	201912.04,1 2,22	52	36	16
01	MO2	Road Safety and Environmental Training Programme	Environmental Specialist, OIC Police Wadikumbura Vidyaloka Maha Vidyalaya	31.07.2019	102	46	56
02	MO2	Road Safety and Environmental awareness programme Drivers and Operators	By PM and ESO At Project Office,	28.10.2019	22	22	0
03	MO2	First aid Awareness Programme with 1990 emergency service -	Offices of the 1990 emergency Service for all staff	31.05.2019	89	61	28
04	MO2	Safety and Environment Awareness Programme	By ESO for community of UMO 093 road	29.06.2019	76	41	35
05	MO2	Environmental Awareness and Tree Planting Programme	By ESO Wadikumbura Vidyaloka Maha Vidyalaya	25.10.2019	41	23	18
06	MO2	Road Safety & Environmental Awareness Programme	By ESO for Project Staff with Driver & Operators at project office	08.08.2019	23	23	0
07	MO2	Fire Demonstration at CE office, Monaragala.	By Safety Officer for CE office staff	04.09.2019	22	20	2
08	MO2	Fire Demonstration at RE office, Madagama.	By Safety Officer for RE office staff	05.09.2019	13	11	2
09	MO2	Safety and Environment Awareness Programme	By PM and ESO for school children at Helatunthala Primary School	21.11.2018	45	25	20

10	MO2	Fire Drill conducted for all staff	By Fire officer, Monaragala PS	11.10.2018	40	37	3
11	MO2	Tool box meeting at Site office	By PM, DPM, ESO for all staff	24.08.2018	27	21	6
12	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	12.09.2018	22	19	3
13	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	14.11.2018	36	28	8
14	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	11.12.2018	36	31	5
15	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	30.01.2019	29	23	6
16	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	15.01.2019	30	27	3
17	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	14.02.2019	42	23	19
18	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	28.02.2019	34	22	12
19	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	09.03.2019	52	34	18
20	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	21.03.2019	75	54	21
21	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	04.04.2019	49	32	17
22	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	24.04.2019	40	27	13
23	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	22.05.2019	59	41	18
24	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	26.06.2019	59	38	21
25	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	25.07.2019	61	41	20
26	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	21.08.2019	61	43	18
27	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	18.09.2019	48	31	17
28	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	16.10.2019	24	20	4
29	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	30.10.2019	19	17	2
30	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	13.11.2019	29	23	6
31	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	23.11.2019	26	21	5
32	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	05.12.2019	25	19	6
33	MO2	Tool box meeting at Project office	By PM, DPM, ESO for all staff	19.12.2019	27	22	5
01	MO3	Basic health & road safety	Contractor	27/11/2018	250	100	150

		awareness program					
02		Importance of wearing PPE	Safety officer (Tool box meeting Awareness)	02/12/2018	80	67	13
03		Fire Safety Training	Safety officer (Tool box meeting Awareness)	12/12/2018	85	79	6
04		Road safety	O.I.C(Traffic Police) Sewanagala	30/12/2018	88	79	9
05		Waste management	Environmental Officer (Tool box meeting Awareness)	05/01/2019	80	68	12
06		Safety issues	Safety officer (Tool box meeting Awareness)	09/01/2019	85	65	15
07		Health & Safety in labour camp	Environmental Officer (Tool box meeting Awareness)	22/01/2019	90	77	13
08		Health, environment & Quality awareness program	Contractor's Head office	23/01/2019	59	45	14
09		Dengue prevention	Environmental Officer (Tool box meeting Awareness)	05/02/2019	170	158	12
10		Awareness on handling sharp tools	Safety officer (Tool box meeting Awareness)	18/02/2019	160	150	10
11		Road safety & environment awareness program	Traffic OIC Police station Thanamalwila, Mr. Malaka Paranamanna-Environment and social specialist-CEA Mr.D.A.D.Ranjith-Social Gender Resettlement specialist-CEA	25/02/2019	160	77	83
12		HIV/AIDS Awareness Programs	Embilipitiya Base Hospital	02/04/2019	198	170	28
13		Contractor's Head office (Funded by Asian development bank)	Road Construction craftsmen training center	27/04/2019	17	15	02
14		Food waste management	Environmental officer (Tool box meeting Awareness)	16/7/2019	60	55	05
15		General Site safety matters	Safety officer (Tool box meeting Awareness)	26/7/2019	67	60	07

16		Road safety & environmental awareness programm	Traffic OIC Police station Hambegamuwa, Mr .Malka Paranamanna- Environment and social specialist-CEA Mr.D.A.D.Ranjith- Social Gender Resettlement specialist-CEA	31/10/2019	186	85	101
17		Infectious Diseases in the Rainy Season (including Leptospirosis disease)	Safety officer (Tool box meeting Awareness)	12/11/2019	70	60	10
18		Awareness on dengue fever	Safety officer (Tool box meeting Awareness)	29/11/2019	65	57	08
19		Awareness on kidney fevers	Safety officer (Tool box meeting Awareness)	10/12/2019	76	68	08
	MO04	Tool box meeting All Staff	Project manger	24.01.2019	35	30	5
		Tool box meeting labour	Safety officer	25.01.2019	62	57	5
		Tool box meeting All Staff	Project manger	06.02.2019	34		
		Tool box meeting labours	Safety officer	11.02.2019	65		
		Tool box meeting All Staff	Project manger	06.03.2019	30	25	5
		Tool box meeting labours	Safety officer	12.03.2019	64	39	25
		Tool box meeting All Staff	Project manger	20.03.2019	10	09	01
		Tool box meeting labours	Safety officer	21.03.2019	40	30	10
		staff officers	Project manger	08.04.2019	30	25	5
		staff officers	Project manger	23.04.2019	44	40	4
		All Labours	Safety officer	24.04.2019	90	70	20
		staff officers & labours	Project manger	08.04.2019	42	32	10
		staff officers, drivers & operators	Project manger	12.06.2019	17	14	03
		staff officers, drivers & operators	Project manger	08.07.2019	17	14	03
		Labours	Project manger	24.10.2019	55	48	07
		Staff officer	Project manger	24.10.2019	25	18	07
		Staff officer	Project manger	25.11.2019	28	22	06



		Labours	Project manger	26.11.2019	55	48	07
1		Toolbox meeting	Safety Officer MO5	17/09/2018	45	44	01
2		Toolbox meeting	Safety Officer MO5	23/10/2018	69	67	02
3		Toolbox meeting	Safety Officer MO5	21/11/2019	40	38	02
4		Toolbox meeting	Safety Officer MO5	18/12/2018	45	43	02
5		Toolbox meeting	Safety Officer MO5	16/01/2019	43	41	02
6		Toolbox meeting	Safety Officer MO5	20/02/2019	45	42	03
7		Toolbox meeting	Safety Officer MO5	04/03/2019	50	47	03
8		Toolbox meeting	Safety Officer MO5	26/03/2019	49	47	02
9		Toolbox meeting	Safety Officer MO5	25/04/2019	50	48	02
10		Toolbox meeting	Safety Officer MO5	08/05/2019	44	42	02
11		Toolbox meeting	Safety Officer MO5	22/05/2019	42	40	02
12		Toolbox meeting	Safety Officer MO5	13/06/2019	46	44	02
13		Toolbox meeting	Safety Officer MO5	23/06/2019	50	48	02
14		Toolbox meeting	Safety Officer MO5	16/07/2019	38	37	01
15		Toolbox meeting	Safety Officer MO5	31/07/2019	41	39	02
16		Toolbox meeting	Safety Officer MO5	12/08/2019	35	34	01
17		Toolbox meeting	Safety Officer MO5	23/08/2019	38	36	02
18		Toolbox meeting	Safety Officer MO5	10/09/2019	35	33	02
19		Toolbox meeting	Safety Officer MO5	25/09/2019	34	32	02
20		Toolbox meeting	Safety Officer MO5	07/10/2019	35	33	02
21		Toolbox meeting	Safety Officer MO5	21/10/2019	32	31	01
22	MO5	Toolbox meeting	Safety Officer MO5	12/11/2019	35	33	02
23		Toolbox meeting	Safety Officer MO5	21/11/2019	35	33	02
24		Toolbox meeting	Safety Officer MO5	10/12/2019	35	33	02
25		Toolbox meeting	Safety Officer MO5	23/12/2019	35	33	02
26		HIV/AIDS prevention Awareness programme for Labour, Operators and Drivers	Doctors (Monaragala Hospital)	23/07/2019	75	67	08
27		Road Safety Awareness Programme for School children	Traffic Police officers Bibile	11/07/2019	76	46	30
28		Road Safety and Environmental Awareness Programme for School children	Environmental specialist-PIC06, Social Safeguard specialist-PIC06 and Traffic Police officers Bibile	27/11/2019	72	48	24
29		Basic First Aid Training	Officers of 1990 - Ambulance Service	10/12/2019	47	47	00
30		Fire Drill Training	Fire officers of Monaragala Pradeshiya Sabha	31/12/2019	30	28	02

31		First Aid Training	Senior PHI – Hospital Bibile	15/03/2019	30	27	03
01	MO06	Fire drilling training	Safety officer	20/08/2019	250	239	11
02			Mr. Ranjith & Mr. Pubudu Tharanga	30/01/2019	106	47	59
01	MO -07	HIV/AIDS Awareness Programs – Officers	District General Hospital Monaragala,	23/10/2018	22	22	02
02		HIV/AIDS Awareness Programs – Driver Operators	District General Hospital Monaragala, Base Hospital Siyambalanduwa	27/12/2018	149	123	26
03		First Aid Training – Staff & Workers	1990 Ambulance Staff	16/05/2019	120	110	10
04		Road safety & Environmental Awareness Program – School Children	PIC06 Staff	19/06/2019	114	62	52
05		Tree Planting, Road safety & Environmental Awareness Program – Village People	PIC06 Staff & Mr. Thilak Kanadagama	21/11/2019	150	95	55
06		Fire drill – Staff & Workers	Monaragala Fire Department	13/11/2018	44	40	4
07		Tool Box meeting -	PIC06 staff and ESSO	Every Tuesday	100	85	15
08		Sub-Contractor – Safety Training	TBL – ESSO	18/10/2019	15	15	00
09		Awareness Program from Mr. Malaka & Mr. Ranjith	PIC06 Staff	22/07/2019	28	26	02

## Annexure 15 - Contractors' CSR programmes

SN	Package	Type of Social Work/programs Conducted
1	BA01	Preparing the wash room's access for Senanigama Primary School's Students
2		Renew the School access for Bandaranayaka School's Students
1		Arranged dengue prevention programme in mapakada 19-mile post
2	BA03	Water Supply by using water bouser for village people for one week
3		Development of access road to temple (Alugolla Asapuwa)
3	BA04	Awareness program for self-employees of UBA023 & UBA024
	BA05	Provide concrete for build Shrine in Yahalaarawa School.
4	BA06	Construction of a road to a newly built Kovil. (Located at Ch.07+450 RHS of UBA081)
3	BA07	Shramadhana Camp arranged for cleaning and painting the "Dowe Temple" Bandarawela
4		Shramadhana Camp arranged for cleaning the "Sri Sanghabodi children's home" surrounding and providing morning tea for the children.
5	BA08	Conducted as Haldummulla Temple
5		Distributing of school bags & books for children
6		Removal of earth slip material at Bathgoda area (Near Colombo-Badulla main road)
7		Removal of boulder material at Haldummulla temple land
8		Preparation of land from using ABC at DS Office Haldumulla to Prevent stagnation of water
6	MO02	Removing unsafety abundant well at Udagangoda primary school
7		Providing wire mesh nets for volley ball court at Speed Sports Club at 2nd Mile Post, Athala, Badalkumbura
8		Special Buddhist Programme held at the PS ground organized by the 'Budumaga Bosath' Organization"
9		Removing unsafe abundant well at Udagangoda primary school
10		Providing wire mesh nets for volley ball court at Speed Sports Club at 2 <sup>nd</sup> Mile Post, Athala, facilitate for playing volleyball for childrans in village
11		Special Buddhist Programme held at the PS ground organized by the 'Budumaga Bosath' Organization" to Assist to control the dust at the PS ground using water Bowser.
9	MO03	Interlock the "Bodi maluwa" of "Sambudda Jayanthi wiharaya" Kiriibbanara,
10		Preparation of sand compound of sri darmendraramaya

SN	Package	Type of Social Work/programs Conducted
11		Providing labour supply for a newly building house for poor family
12	MO03	Provide one backhoe loader and dump trucks for the sandaraja vidyalaya to clearing the school land
12		Excavating a dumping pit for organic waste at Rathabalagama school Hambegamuwa
13		Excavating a dumping pit at Seawanagala police station
14		Excavation of School Drain System at Indikolapelesa primary school
15		Providing JCB,Morter greader and roaler to Preparing the school playground at Hambegamuwa secondary school
16	MO04	Painted shrine of temple
17		Grass cutting at temple premises
18		Tree planting programme at Pre School
13	MO - 05	Preparation of playground of Mudiya School, Yalkumbura
14	MO06	Improvement of cricket pitch as per the request was made by the Principal of Mo/Atiliwewa Maha Vidyalaya
		Provide machineries for the Elephant rescue mission
19		Provide masons and labours for plastering dhamma hall at Sri Kanabhiswaramaya temple located at UMO068 as per the request was made by the chief monk through RE-Buttala
15	MO07	Drinking Water Supply for Mahakalugolla Police Station
20		3rd Village Road Maintenance







