

Environmental Monitoring Report

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SRI: Integrated Road Investment Program – Tranche 1, 3 & 4 PIC 01 – Southern Province

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

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DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

Ministry of Highways & Road Development and Petroleum
Road Development Authority



Asian Development Bank Funded
Integrated Road Investment Program
iRoad – Southern Province
ADB Loan No - 3171

ANNUAL ENVIRONMENT COMPLIANCE MONITORING REPORT

2018

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
AIDS	Acquired Immunodeficiency Syndrome
ARE	Assistant Resident Engineer
CEA	Central Environmental Authority
CRCs	Conventional Road Contracts
CSD	Context Sensitive Design
DE	Design Engineer
DPM	Deputy Project Manager
EARF	Environmental Assessment and Review Framework
ECOP	Environmental Code of Practice
EMAP	Environmental Management Action Plan
EMC	Environmental Monitoring Checklist
EMP	Environmental Management Plan
EO	Environmental Officer
ES	Environmental Specialist
ESDD	Environmental & Social Development Division
FFPO	Fauna & Flora Protection Ordinance
GAP	Gender Action Plan
GIS	Geographical Information System
GND	Grama Niladari Division
GoSL	Government of Sri Lanka
GRM	Grievance Redress Mechanism
HIV	Human Immunodeficiency Virus
IA	Implementation Agency
IEE	Initial Environmental Examination
iROAD(SP)	Integrated Road Investment Program Southern Province
LARP	Land Acquisition and Resettlement Plan
ME	Material Engineer
ME&RE	Ministry of Environment & Renewable Energy
MMF	Multi-tranche Financing Facility
MOHEH	Ministry of Higher Education & Highways
MOHRD &PRD	Ministry of Highways & Road Development and Petroleum Resources Development
NEA	National Environmental Act
OPRC	Output & Performance Based Road Contracts
PAA	Project Approving Agency
PBM	Performance Base Maintenance
PE	Project Engineer
PIC	Project Implementation Consultants
PIU	Project Implementation Unit
PLE	Planning Engineer
PM	Project Manager

PPT	Power Point Presentation
PRDA	Provincial Road Development Authority
PS	Pradeshiya Sabha
RDA	Road Development Authority
RE	Resident Engineer
RF	Resettlement Framework
RRDSE	Rural Road Design & Safety Engineer
RSA	Road Safety Audits
SE	Site Engineer
SGRS	Social Gender Resettlement Specialist
SLRM	Sri Lanka Resident Mission
SO	Safety Officer
SPS	Safeguard Policy Statement
TL	Team Leader
TO	Technical Officer
TOR	Terms of Reference

1. Introduction



1.1 The Project

The ADB's Multi tranche Financing Facility (MFF) for the Integrated Road Investment Program (iRoad) provides loans to Sri Lanka in an aggregate amount of up to \$800 million equivalent. The Government of Sri Lanka (GOSL) will provide counterpart financing of \$106 million for feasibility study and engineering, tax and duties, and part of the contingency. The MFF will comprise a series of loans, to improve the access routes between rural areas and socioeconomic centers, in tranches. The investment program comprises five projects to be implemented between 2014 and 2024. Project 1 is in Southern Province with an estimated cost of \$235 million. The Loan will finance the Project in Southern Province amounting to \$118 million, with ADB financing \$100 million and GOSL providing the balance \$18 million in counterpart funds.

The Loan and project agreements for Tranche 1 became effective on 07 January 2015. The Project in Southern Province will improve and maintain 560 km of rural access roads, including 510 km of local roads and 50 km of provincial roads and a further 20 km of national roads. The rural access roads will be improved to all-weather standards, and be maintained for three years. The national roads will also be improved, and maintained for three years. The national roads will connect the rural access roads to adjacent socioeconomic centers.

1.2 Conventional Road Contracts (CRCs)

The 560 km of rural roads and 20 km of national roads covering the districts of Galle, Matara and Hambantota have been packaged in to three Contract Packages in each district resulting in a total of nine Contract Packages in Southern Province.

The three (3) CRCs in Galle District are listed in Tables 1.1, 1.2 and 1.3. The local roads have been identified as Provincial Road Development Authority (PRDA) or Pradeshiya Sabha (PS) and the national roads as Road Development Authority (RDA).

1.3 Objectives and Outline of the Project

The broad objective of this project is to improve the existing road surface to all-weather road surface in rural areas of Sri Lanka, so that rural population can be conveniently involved in the nationwide economic and social development.

As per the updated Facilities Administration Manual (FAM) of 1 October 2015 Project 1 in Southern Province includes three components:

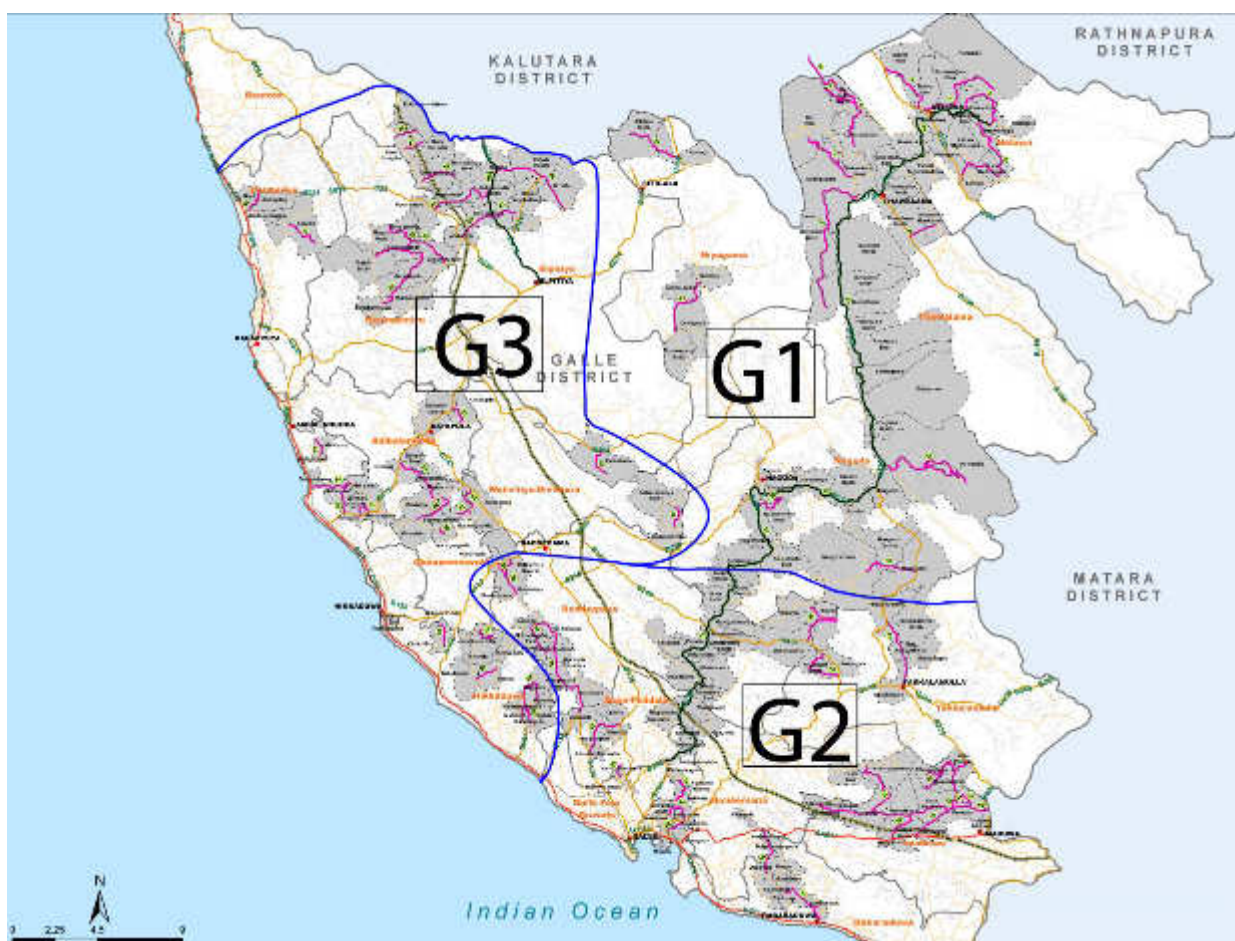
- (a) Improvement of 560 Km of rural access roads to all weather standards and 20 Km of national roads, and maintained for a period of three years, under nine CRCs.
- (b) Capacity development: This includes building the capacity of road agencies, including Ministry of Highways & Road Development and Petroleum Resources Development (MOHRD&PRD), RDA and provincial and local road agencies, on road asset management, project management, and contract administration.
- (c) Project preparation of following tranches.

The three (3) CRCs in Galle District are listed in Table 1.1

Table 1.1: CRCs in Galle District

No.	Contractor	Accepted Contract Amount (LKR)	Commencement Date	RDA (km)/ (nos.)	PRDA (km)/ (nos.)	PRDA & PS (km)/ (nos.)	PS (km)/ (nos.)	Total (km) / (nos.)
G1	K. D. Ebert & Sons Holdings(Pvt) Ltd	1,458,055,706.14	18.05.2015	-	2.8/1	-	61.8/14	64.6/15
G2	K. D. A. Weerasinghe & Co(Pvt) Ltd	1,483,136,252.40	18.05.2015	-	15.7/3	3.0/1	47.3/18	66.0/22
G3	K. D. A. Weerasinghe & Co(Pvt) Ltd	1,733,440,933.20	18.05.2015	9.4/1	2.2/1	15.5/3	43.7/24	70.8/29
Sub Total Galle District		4,674,632,891.74	-	9.4/1	20.7/5	18.5/4	152.8/56	201.4/66

The locations of the 201.4 Km (66 nos.) roads in Galle District are shown in **Map 1.1** below.



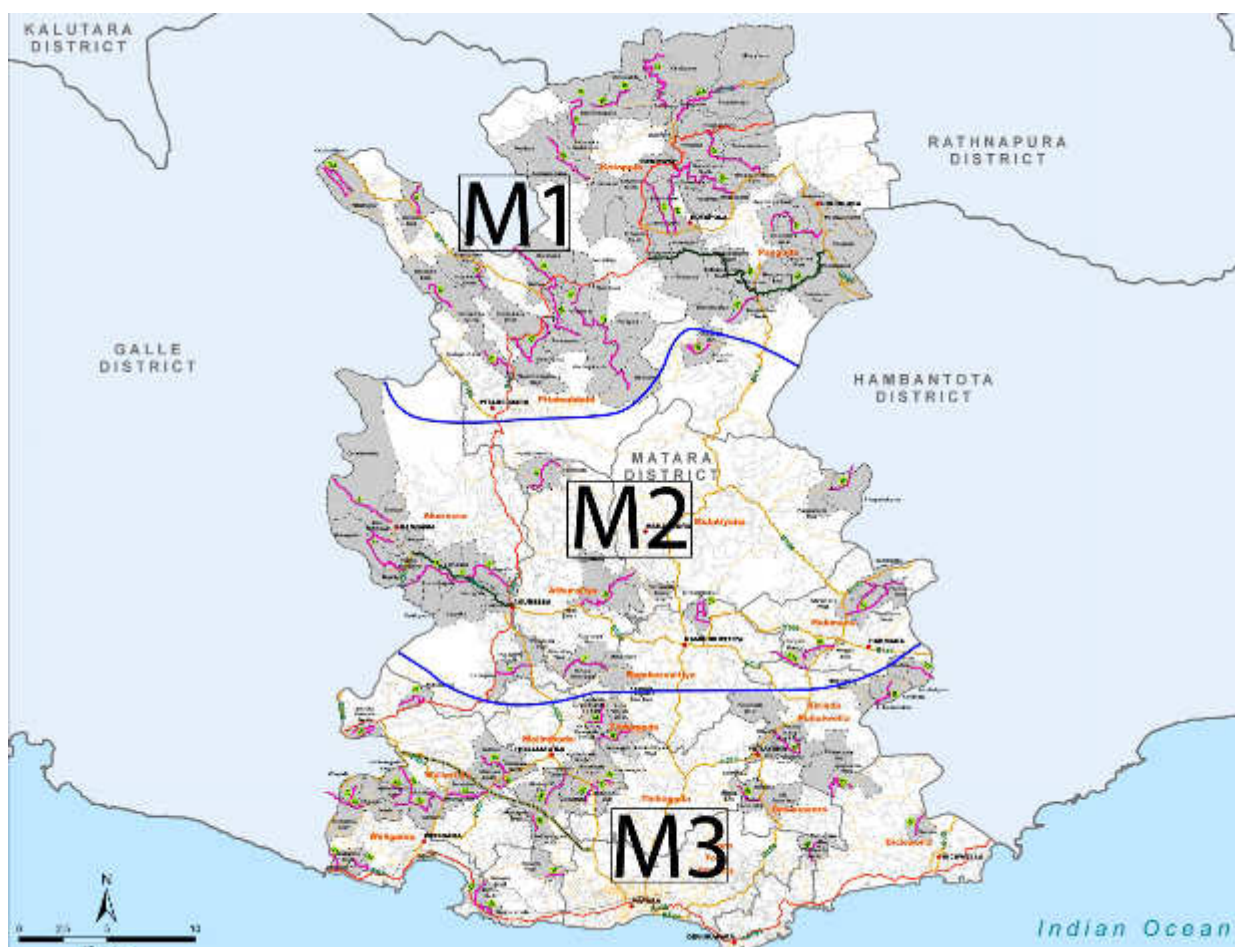
Map 1.1: Locations of 201.4 Km (66 nos.) roads in Galle District

The three (3) CRCs in Matara District are listed in Table 1.2

Table 1.2: CRCs in Matara District

No.	Contractor	Accepted Contract Amount (LKR)	Commencement Date	RDA (km)/ (nos.)	PRDA (km)/ (nos.)	PRDA & PS (km)/ (nos.)	PS (km)/ (nos.)	Total (km) / (nos.)
M1	CML-MTD Construction Ltd	2,315,346,953.44	18.05.2015	6.3/1	29.4/5	-	61.8/16	97.5/22
M2	K. D. Ebert & Sons Holdings (Pvt) Ltd	1,803,301,712.60	18.05.2015	7.2/1	11.3/2	-	50.7/16	69.2/19
M3	K. D. Ebert & Sons Holdings (Pvt) Ltd	1,207,599,780.58	18.05.2015	-	4.8/2	-	48.6/23	53.4/25
Sub Total Matara District		5,326,248,446.62	-	13.5/2	45.5/9	-	161.1/55	220.1/66

The locations of 220.1 Km (66 nos.) roads in Matara District are shown in **Map 1.2** below.



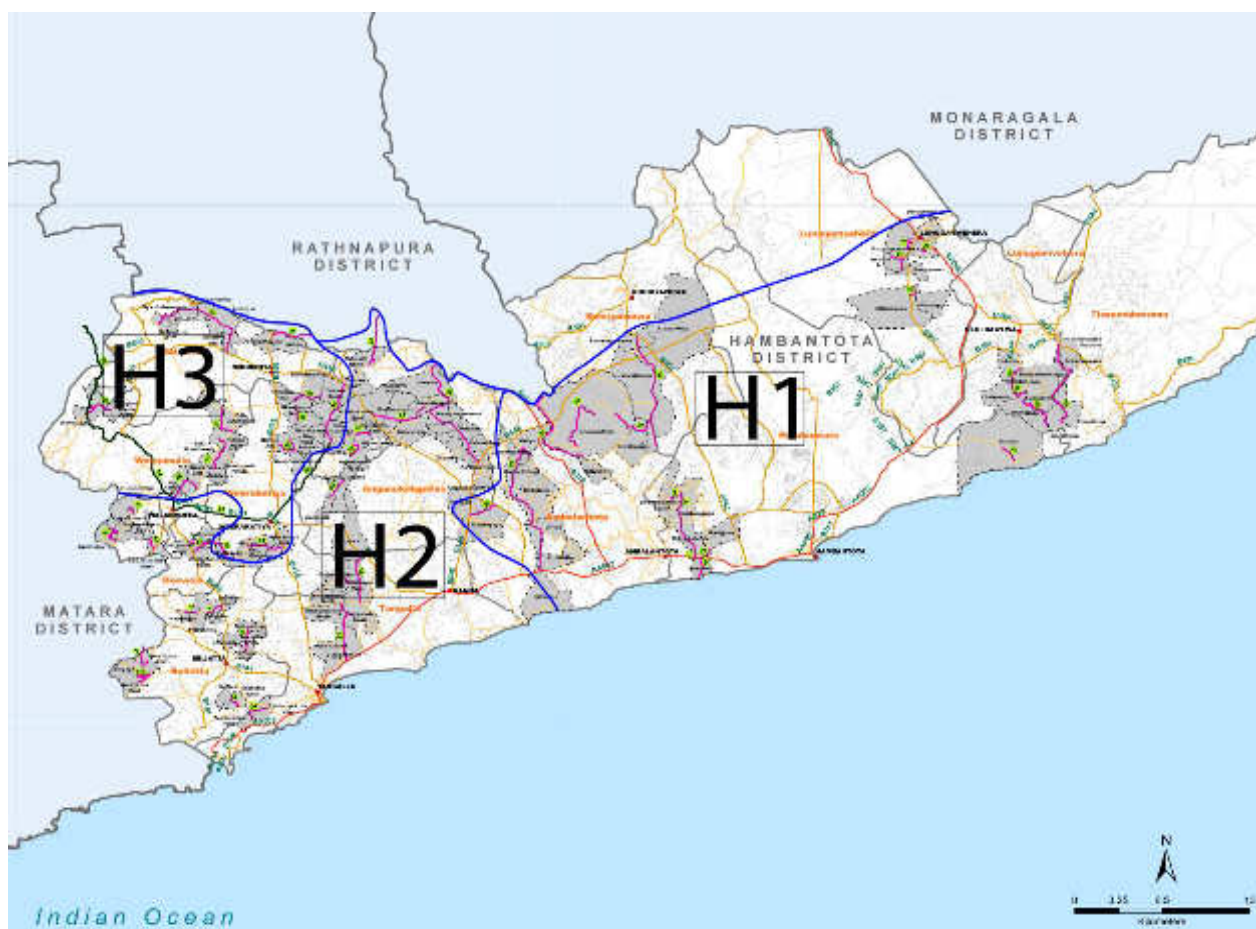
Map 1.2: Locations of 220.1Km (66 nos.) roads in Matara District

The three (3) CRCs in Hambantota District are listed in Table 2.3

Table 1.3: CRCs in Hambantota District

No.	Contractor	Accepted Contract Amount (LKR)	Commencement Date	RDA (km)/ (nos.)	PRDA (km)/ (nos.)	PRDA & PS (km)/ (nos.)	PS (km)/ (nos.)	Total (km) / (nos.)
H1	K. D. A. Weerasinghe & Co (Pvt) Ltd	1,583,594,552.40	18.05.2015	-	19.3/4	-	47.8/15	67.1/19
H2	CML-MTD Construction Ltd	1,210,330,393.84	18.05.2015	-	15.6/1	-	42.4/17	58.0/18
H3	RR Construction (Pvt) Ltd	1,052,141,503.89	18.05.2015	-	8.8/1	-	33.1/13	41.9/14
Sub Total Hambantota District		3,846,066,450.13	-	-	43.7/6	-	123.3/45	167.0/51

The locations of 167.0 Km (51 nos.) roads in Hambantota District are shown in **Map 1.3** below.



Map 1.3: Locations of 167.0 Km (51 nos.) roads in Hambantota District

1.4. Supervision, Responsibilities and Staffing, for Environmental Safeguard Implementation

The Project Implementation Unit (PIU) under RDA, MOHRD&PRD is responsible for overall conduction of environmental assessments, implementation and monitoring of environment safeguards for specific project roads under the investment program. Within RDA there is a separate unit, the Environment and Social Development Division (ESDD) to cover social and environment safeguards. ESDD was established in response to capacity building needs identified in earlier ADB projects such as the Southern Transport Development Project. This division comprises of approximately 7 environment safeguard officers and 9 social safeguard officers who are well experienced in implementing ADB projects. The division is responsible for developing manuals and guidelines, providing assistance in conduction of proper safeguard assessments, and implementation and monitoring of environment and social safeguards in accordance with environmental policies of GOSL and donor agencies.

However since ESDD is responsible for all projects under RDA and given the large scale of the investment program, this division does not have adequate time and resources to implement and monitor safeguards for the iRoad program. Therefore, a separate safeguard team dedicated to the investment program has been created (Environment and Social Unit-ESU) within the PIU for managing safeguard. ESDD provides technical support and monitor the implementation of safeguards under the iRoad program on regular basis as necessary.

The safeguards team was comprised of sufficient social and environment safeguard officers as necessary to cover the quantum and geographic distribution of works in all provinces under the investment program. The safeguard team (fig. 01) supported by a team of environmental consultants under the Project Implementation Consultants (PIC), daily monitor the implementation of EMAP and compilation of monitoring checklists and reports. Overall supervision done by ADB CSD/ SG specialist in the PIC 01 and the main role was to advise PIU and PIC safeguard officials regarding project safeguard aspects and how it implement according to the guideline set by ADB.

Detailed safeguard training workshops were conducted for the PIU, safeguard team, SAPE and PIC to clarify the roles and responsibilities of each party, method of consultation and record keeping and reporting requirements before the conduction of environmental assessment studies for each tranche. After the award of civil works contract and before the start of physical works training workshops were conducted for the PIU, safeguard team, PIC and contractor on roles and responsibilities of each party for Environmental Management Action Plan (EMAP) implementation and monitoring methods, record keeping and reporting requirements. Thereafter other subject specific or on the job training were organized by the PIU and PIC on a need basis.

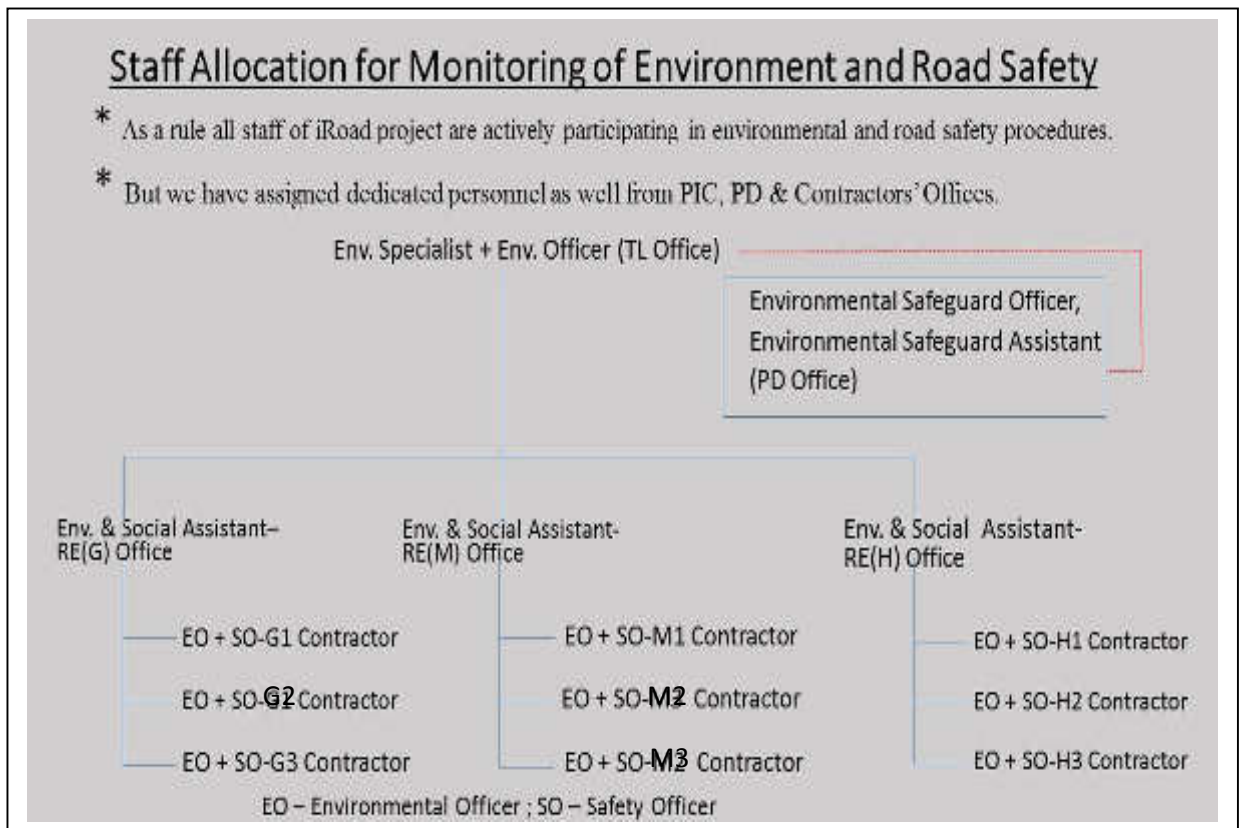


Figure 01. The staff allocation for monitoring environment safeguard, health and safety at iRoad (SP).

1.5. Purpose of the Report

Environmental Assessment and Review Framework (EARF), which has been prepared during the Project Preparatory Technical Assistance (PPTA) sets out guidelines and procedures, which need to be complied under environmental safeguards of the iRoad project. As mentioned in section VII of EARF on “Monitoring and Reporting”, it is required to prepare an annual Environmental Compliance Monitoring Report (ECMR) on the progress of environmental safeguards compliance of the project.

The report is prepared to serve as the annual ECMR safeguards and the reporting period is cover from 1 January to 31 December 2018. However, the report is giving some of main highlights and information, which was not covered, from the other previous annual ECMR.

2. Progress of Civil Works



2.1 Civil Works Progress

Civil works progressed according to the guidelines set in contract document 5B [Environmental Monitoring Plan, (EMP)] to compliance with environmental safeguards. Before actual physical road works start in each road in all 9-contract packages, contractors have submitted their Environmental Monitoring Action Plan (EMAP) and Site Specific Environmental Monitoring Action Plan (SSEMAP) reports to PIC. Environmental Specialist has commented and approved each report by ES's signature and the date on the report. Following photographs (Pics.01-03) show how the contractors followed up safeguard in every aspects of completing road construction activity.



Picture 01. Turfing done for preventing soil erosion- H2 package.



Picture 02. Workers' safety- PPE progress- H3 package.



Picture 03. Monitoring of environmental safeguards post construction- M2 package.

2.2 Performance Based Maintenance (PBM)

The issue of Taking Over Certificates (TOC) for individual completed roads commenced from 01 January 2018 and to 31 December 2018 a total of 155 nos. roads (445.62 km) has been taken over. PBM works have commenced on these 155 nos. roads and monthly inspections are being carried out as per contract requirements. Details of 155 nos. roads taken over are shown in Table 2.0.



Picture 04. Field workshop for safety and environmental safeguards at performance base maintenance period- G3 package.

Table 2. 0. Summary of Completed Roads – iRoad(SP)

Serial No	District	Contract Package	DSD	Road Name	Road ID	Road Length (KM)	Road Category	Taken-Over Date	Commencement of PBM Period	End of 3 yrs PBM Period
-	Galle District	G1	Nil							
1		G2	Bope - Poddala	Hapugala - Eriyagaha Junction	22	2.90	PRDA	13-Feb-17	14-Feb-17	14-Feb-20
2				Edirisinghe Mawatha – Navinna	23	0.90	PS			
3			Baddegama	Wackwella – Ginimallagaha	36	7.00	PRDA			
4				K. G. Palis Mawatha	37	2.00	PS			
5			Habaraduwa - Imaduwa	Mayakaduwa - Kombala Temple - Watiyadeniya - Heenpandala Road	12	0.90	PS	10-Aug-17	11-Aug-17	11-Aug-20
6				Galkatiya - Jayasumanaramaya, Goviyapana Junction Road	15	1.50	PS			
7				Kombala - Halamulla - Niriwella Road	19	3.20	PS			
8			Akmeemana	Hiyare East - School Road via Kaluwala Badipita Hawpe Road	27	1.30	PS	20-Oct-17	21-Oct-17	21-Oct-20
9			Habaraduwa - Imaduwa	Liyanagoda - Lanumodara - Pitiduwa Road	17	3.00	PS			
10			Baddegama	Waulagala – Batakatiya Road	38	2.00	PS			
11			Habaraduwa - Imaduwa	Dodampe – Padinnoruwa Road	18	2.74	PS	29-Dec-17	30-Dec-17	30-Dec-20
12			Yakkalamulla	Janahitha Tea Factory - Nawungala School via Muslim Janapadaya Road	34	3.25	PS			
13			Baddegama	Nagashandiya – Halpathota Road	39	1.15	PS			

Serial No	District	Contract Package	DSD	Road Name	Road ID	Road Length (KM)	Road Category	Taken-Over Date	Commencement of PBM Period	End of 3 yrs PBM Period
14	Galle District	G2	Akmeemana	Poorwarama Road Bataduwa	25	1.537	PS	21-Feb-18	22-Feb-17	22-Feb-20
15				Kapuhempala, Ambalamakanda, Hinidumgoda, Haliwala Road	24	1.770	PS	29-Mar-18	30-Mar-18	30-Mar-21
16				Bataduwa - Sudarmaramaya Road	26	0.903	PS			
17			Habaraduwa - Imaduwa	Taramulla – Allalagoda Road	14	2.300	PS	27-Apr-18	28-Apr-18	28-Apr-21
18				Pangirihena – Mayakaduwa Road	16	5.810	PRDA			
19				Mayakaduwa – Wadiyakanda - Makaduwa Temple Kakillawatta Junction Road	20	5.288	PS			
20				Kabaragala Badipita Puswelkada Unagaswita Galpoththa Kombala Junior Road	13	7.118	PS	31-May-18	01-Jun-18	01-Jun-21
21			Yakkalamulla	Yakkalamulla Via Udumala gala to Nakiyadeniya Road	33	4.008	PS			
22				Nawala Community Hall to Goluwamal hena via Ellagawa Road	35	5.100	PS			
23		G3	Elpitiya	Goluwamulla – Atakohota Road	40	2.20	PRDA	03-Mar-17	04-Mar-17	04-Mar-20
24			Hikkaduwa	Galduduwa Aranya Road	64	2.30	PS			
25			Elpitiya	Amuna Junction – Maitrigama Road	42	3.90	PS	17-Oct-17	18-Oct-17	18-Oct-20
26			Hikkaduwa	Kahawa - Galduduwa Road	56	1.89	PS	03-Oct-17	04-Oct-17	04-Oct-20
27			Elpitiya	Goluwamulla - Welimanana Nagahatenna Road	41	1.91	PS	05-Jan-18	06-Jan-18	06-Jan-21
28				Opatha - Omatta – Bulugaha Road	44	4.79	PS	05-Jan-18	06-Jan-18	06-Jan-21
29			Karandeniya	Madakubura Junction - Kaluwalagoda Road	66	4.52	PRDA/PS	05-Jan-18	06-Jan-18	06-Jan-21
30				Kaluwalagoda Road	65	6.15	PRDA/PS	27-Feb-18	28-Feb-18	28-Feb-21
31				Bogaha Junction Kaluwalagoda Road	67	1.88	PS			

Serial No	District	Contract Package	DSD	Road Name	Road ID	Road Length (KM)	Road Category	Taken-Over Date	Commencement of PBM Period	End of 3 yrs PBM Period
32	Galle District	G3	Elpitiya	Pinikahana – Puwakdola Road	43	2.72	PS	27-Feb-18	28-Feb-18	28-Feb-21
33			Weliwitiya - Diwithura	Waduveliwitiya Mukdawela Junction - Putuwagoda Watta via Soratha Gammanaya Road	48	1.35	PS	04-May-18	05-May-18	05-May-21
34			Gonapinuwala	Manampita - Dehigaha Bedda Kirindiela Road	49	2.65	PS			
35				Ampegama School - Unapandura Junction Road	52	1.38	PS			
36			Hikkaduwa	Buddajayanthi Mawatha Thirangama Road	59	1.25	PS	31-May-18	01-Jun-18	01-Jun-21
37			Bentota	Surasena Mawatha	46	2.21	PS	31-May-18	01-Jun-18	01-Jun-21
38			Hikkaduwa	Boosa Kekilla Mandiya Regjipura Madawala Rd	58	3.36	PS			
39				Boosa Hegoda Rajakoratuwa Rd	63	1.21	PS			
40				Sirikadura Watta Sunami Niwasa Rd	61	1.46	PS	30-Jun-18	01-Jul-18	02-Jul-21
41				Dudley Senanayake Mawatha Weragoda	62	0.97	PS			
42			Bentota	Galparaya Road	45	1.96	PS	31-May-18	01-Jun-18	01-Jun-21
43				Deddugala - Bataduwa Rd	47	1.03	PS			
44			Hikkaduwa	Ratagama Imbulgoda Rd	60	1.37	PS	31-May-18	01-Jun-18	01-Jun-21
45			Balapitiya	Hatharaman Junction - Pasman Junction	69	1.68	PS			
46				Thannahengoda Rd	70	1.96	PS			
47			Gonapinuwala	Welibokkuwa - Banwelgodella Rd	51	0.87	PS	11-May-18	12-May-18	12-May-21

Serial No	District	Contract Package	DSD	Road Name	Road ID	Road Length (KM)	Road Category	Taken-Over Date	Commencement of PBM Period	End of 3 yrs PBM Period
48	Galle District	G3	Ambalangoda	Batapola Dorala Junction to Kirimatiara Road	53	1.14	PS	04-May-18	05-May-18	05-May-21
49			Elpitiya	Elpitiya - Awiththawa	44A	9.40	RDA	30-Jun-18	01-Jul-18	01-Jul-21
50			Ambalangoda	Nindana School to 05th mile post via Wathurawila	54	4.91	PS			
51			Hikkaduwa	Dewagoda - Balabokka Rd	57	0.71	PS			
52	Matara District	M1	Kotapola - Morawaka	Porupitiya - Annasigalawila Road	21	1.40	PS	28-Feb-17	01-Mar-17	01-Mar-20
53				Bengamuwa-Dabogala Road up to Napath Ella	24	3.20	PS			
54			Pitabeddara	Morawaka – Millawa Road	10	2.90	PRDA	13-Oct-17	14-Oct-17	14-Oct-20
55			Kotapola - Morawaka	Kolawenigama – Uggalpotha Road	66	1.60	PS			
56			Pitabeddara	Millagahahena – Kudagalahena Road	11	4.40	PS	30-Nov-17	01-Dec-17	01-Dec-20
57			Kotapola - Morawaka	Kiriwalladola Junction to Hingurahena Road	19	2.10	PS			
58				Morawaka - Paragala Diyadawa Road	14	11.70	PS	30-Nov-17	01-Dec-17	01-Dec-20
59			Pitabeddara	Alapaladeniya – Thalpekumbura Road	8	2.52	PS	06-Dec-17	07-Dec-17	07-Dec-20
60			Kotapola - Morawaka	Diyadawa - Olakumbura via Kosmodara Road	64	2.52	PS			
61				Diyadawa - Bata Adura Road	65	7.50	PS			
62			Pitabeddara	Darangala – Dahaya Kanda Mahena Road	12	3.80	PS	04-Jan-18	05-Jan-18	05-Jan-21
63			Kotapola - Morawaka	Kiriwellagama Market to Dewala Road	18	1.02	PS	01-Feb-18	02-Feb-18	02-Feb-21
64				Keeriwaldola – Keeriwelgama Road	20	2.29	PS			
65			Pitabeddara	Dangala – Dellawa Road	9	2.38	PRDA	05-Feb-18	06-Feb-18	06-Feb-21
66				Abewala – Thibbatuwawa Road	10A	4.93	PS			

Serial No	District	Contract Package	DSD	Road Name	Road ID	Road Length (KM)	Road Category	Taken-Over Date	Commencement of PBM Period	End of 3 yrs PBM Period
67	Matara District	M1	Kotapola - Morawaka	Berala Panathara - Thala Palakanda Road	15	6.10	PRDA	22-Mar-18	23-Mar-18	23-Mar-21
68				Pathawala - Nadakanda – Keeriwellegama Road	17	2.82	PS			
69				Millalle via Aluwana Sankassa to Madde Ala Road	22	6.95	PS			
70				Weliwa Pahuruthota - Neel Ella Road	23	4.51	PS			
71				Kosmodara – Bodeniya Road	16	4.12	PS	04-May-18	05-May-18	05-May-21
72				Deniyaya – Viharahena Road	24A	6.30	RDA			
73		M2	Pasgoda	Urubokka - Pothdeniya Road	42	6.50	PRDA	19-Jan-18	20-Jan-18	20-Jan-21
74			Hakmana	Kongala D. C. Abeywickrama Road	56	2.44	PS	28-Jun-18	29-Jun-18	29-Jun-21
75			Akuressa	Paraduwa - Pahuranwila Road	5	2.38Km	PS	25-Oct-18	26-Oct-18	26-Oct-21
76			Mabimboda	Ogaspe Junction to Maligathenna Athtuduwa Road	52	0.76Km	PS	25-Oct-18	26-Oct-18	26-Oct-21
77				Agawaththa Thalagahagoda Road	51	1.07Km	PS	25-Oct-18	26-Oct-18	26-Oct-21
78			Hakmana	Thumbe - Kongala Road	57A	4.70Km	PRDA	17-Oct-18	18-Oct-18	18-Oct-21
79			Pasgoda	Lew Pothdeniya Road	41	2.73Km	(PS)	30-Nov-18	01-Dec-18	01-Dec-21
80			Mabimboda	Sulthanagoda – Welihinda Road	55	1.31 Km	(PS)	30-Nov-18	01-Dec-18	01-Dec-21
81		M3	Weligama - Welipitiya	Ibbawala - Panchaliya – Andugoda Road	30	2.28	PRDA	20-Oct-17	21-Oct-17	21-Oct-20
82				Jamburagoda Heeelgoda Junction – Bodduwa Road	35	1.87	PS			
83				Welipitiya Junction - Addarawela	32	2.26	PS	08-Jan-18	09-Jan-18	09-Jan-21
84				Pathegama - Kudalumulla Road	34	2.28	PS			
85				Welipitiya Junction - Munamalpe - Udukawa Road	39	2.47	PRDA			

Serial No	District	Contract Package	DSD	Road Name	Road ID	Road Length (KM)	Road Category	Taken-Over Date	Commencement of PBM Period	End of 3 yrs PBM Period
86	Matara District	M3	Weligama - Welipitiya	Kananke - Polhene - Nagashena - Puhulhene Road	25	2.08	PS	16-Jan-18	17-Jan-18	17-Jan-21
87				Dehigahahena – Udukawa Road	26	2.51	PS			
88				Jaburegoda - Bodhirukkaramaya Road - (Jamburugoda – Bodhirukkaramaya)	33	2.31	PS	22-Jan-18	23-Jan-18	23-Jan-21
89				Kananke Police Station - Dewelagoda Road	36	1.61	PS			
90			Kirinda - Puhulwella	Kubalgoda - Seelarathana Mawatha Road - (Kubalgoda - Seelarathana Mawatha)	47	1.7	PS	22-Jan-18	23-Jan-18	23-Jan-21
91			Devinuwara	Sri Piyarathana Mawatha Road (Kakuluwangoda Mawatha)	58	1.91	PS			
92				Ashokarama Road	59	1.77	PS			
93			Dickwella	Degigewatta Hakalamulla Road	60	1.25	PS	02-Mar-18	03-Mar-18	03-Mar-21
94			Weligama - Welipitiya	Yatipila - Udahahena – Henwala Road	28	1.83	PS	28-Feb-18	01-Mar-18	01-Mar-21
95				Kotavila – Kudawella - Sulthanagoda Road	37	2.01	PS	28-Feb-18	01-Mar-18	01-Mar-21
96				Udukawa - Baduravila Road	38	1.35	PS	27-Mar-18	28-Mar-18	28-Mar-21
97			Kirinda - Puhulwella	Karatota School - Gewal Dahaya Road	46	2.48	PS			
98			Weligama - Welipitiya	Ibbawala – Ranamaduuraagama Road	31	1.31	PS	28-Feb-18	01-Mar-18	01-Mar-21
99				Denuwala – Kapuwatta Jaya Wijayagama Road	27	2.19	PS	06-Apr-18	07-Apr-18	07-Apr-21
100			Kamburupitiya	Narangalgoda – Palliya Gedara Road	44	2.34	PS			
101			Thihagoda	Samagi Mawatha via Siridewapriya Mawatha Road	48	2.75	PS	27-Mar-18	28-Mar-18	28-Mar-21
102			Dickwella	Kaluhena Kolaniya Road	61	4.41	PS	31-May-18	01-Jun-18	01-Jun-21

Serial No	District	Contract Package	DSD	Road Name	Road ID	Road Length (KM)	Road Category	Taken-Over Date	Commencement of PBM Period	End of 3 yrs PBM Period
103	Matara District	M3	Weligama - Welipitiya	Udupila Junction - Udupila Vihandagoda Road	29	1.33	PS	31-May-18	01-Jun-18	01-Jun-21
104			Kamburupitiya	Baragammulla Moragasmandiya Road	43	1.75	PS			
105			Kirinda - Puhulwella	10th Mile Post - Hakmana Gedara Kade Road	45	3.48	PS			
106	H'tota District	H1	Ambalanthota	Eraminiyaya - Hadunkatuwa Road	26	3.60	PS	10-Jan-18	11-Jan-18	11-Jan-21
107			Hambanthota	4 Ela - School Road	9	0.90	PS	30-Aug-17	31-Aug-17	31-Aug-20
108				Boralukanda Co-operative - Boralukanda Handiya Road (Laksiri Road)	11	0.80	PRDA			
109				Godawaya Junction - Temple Road	12	1.60	PS			
110	H'tota District	H1	Hambanthota	Manchgawa Layma Handiya Road	13	0.80	PS	16-Feb-18	17-Feb-18	17-Feb-21
111				Boondala - Meda Para	10	1.50	PS			
112			Lunugamwehera	Weeravila Ara 01st Cross Road	19	1.20	PS	16-Feb-18	17-Feb-18	17-Feb-21
113				Ittan Wewa 02nd Cross Road	20	0.60	PS			
114			Ambalanthota	Ridiyagama – Kahabodawila - Thuduwaamulla Road (Ridiyagama – Ahabodawila)	30	6.20	PRDA/PS			
115			Tissa	Ikkapallama School Road	17	1.90	PS	06-Apr-18	07-Apr-18	07-Apr-21
116			Lunugamwehera	Diya bediya Road	18	1.10	PS	21-May-18	22-May-18	22-May-21
117			Ambalanthota	Hathagala handiya - Deniya Pingama to Athbatuwa to Hadunkatuwa Gamaralagama Handiya Road	28	9.70	PS	22-May-18	23-May-18	23-May-21
118			Hambanthota	Boralukanda Junction Uda Beragama to mahaa ara Junction Road	8	3.20	PRDA	23-May-18	24-May-18	24-May-21
119			Tissa	Sabapathikade – Gonamuwa Hospital Road	16	1.90	PS	28-May-18	29-May-18	29-May-21

Serial No	District	Contract Package	DSD	Road Name	Road ID	Road Length (KM)	Road Category	Taken-Over Date	Commencement of PBM Period	End of 3 yrs PBM Period
120	H'tota District	H1	Lunugamwehera	Piyapala Mawatha Road	21	2.30	PS	31-May-18	01-Jun-18	01-Jun-21
121			Ambalanthota	Thuduwa Mulla - Habarakathawala Goda Koggala Road	27	6.80	PS			
122			Sooriyawewa	Koggala Sooriyawewa Road	36	7.30	PRDA			
123			Tissa	Magama Road	14	8.00	PRDA	31-Jul-18	01-Aug-18	01-Aug-21
124		H2	Beliatta	Anamaduwa – Aranwela Road (Angulmaduwa – Aranwela Road)	6	1.90	PS	18-Apr-17	19-Apr-17	19-Apr-20
125				Pattiyawela – Tharapeliya Road	7	1.00	PS			
126			Thangalla	Pattiyapola – Marakolliya Road	33	3.10	PS			
127				Pattiyapola - Akkarawela Thalunna Road	35	4.20	PS			
128			Angunukolapelassa	Uswewa Via Pahalagama Sooriyapokuna Junction Road	25	6.40	PS	05-May-17	06-May-17	06-May-20
129			Thangalla	Kadurupokuna - Seenimodara Road	34	2.60	PS	30-Jun-17	01-Jul-17	01-Jul-20
130			Angunukolapelassa	Uswewa Binkama Road	22	15.6	PRDA	15-Jul-17	16-Jul-17	16-Jul-20
131			Okewella	Kadigamuwa Palamkada to Ekamuthu Mawatha to Batalawatta Road	43	3.70	PS	12-Dec-17	13-Dec-17	13-Dec-20
132			Angunukolapelassa	Dambarella Co-op Kanabandi Area Road	23	4.50	PS	07-Sep-17	08-Sep-17	08-Sep-20
133			Beliatta	Pattiyawela – Pallattara Road	1	3.90	PS	29-Sep-17	30-Sep-17	30-Sep-20
134				Edirisinghe Mawatha Road	3	1.20	PS			
135				Siyabalapa hena Road (Siyabalahena Road)	5	1.10	PS	31-Oct-17	01-Nov-17	01-Nov-20
136				Upaskagoda (Upasakagoda) Well - Water Tank Road	2	1.20	PS	21-Nov-17	22-Nov-17	22-Nov-20
137				Polapothe Watta Road	4	0.90	PS			

Serial No	District	Contract Package	DSD	Road Name	Road ID	Road Length (KM)	Road Category	Taken-Over Date	Commencement of PBM Period	End of 3 yrs PBM Period	
138	H'tota District	H2	Angunukolapelassa	Gajanayakagama Debokkawa Junction - Gajanayakagama Junction Road	24	1.90	PS	30-Dec-17	31-Dec-17	31-Dec-20	
139			Okewella	Sumihirigama Co-op City - Kukula Mandiya Hena Mahamadiththa Road – (Road ID 42) – 1.9Km (PS)	42	1.90	PS				
140			Okewella	Pallekanda Junction - Udahatana Gambaddala Road	41	1.80	PS	30-Dec-17	31-Dec-17	31-Dec-20	
141				Gonadenihena Kanda via Rajapaksha Mawatha Road	44	1.10	PS				
142		H3	Walasmulla	Bariyar Junction to Galwadiya 4th Mile Post Road	38	2.60	PS	06-Jun-17	07-Jun-17	07-Jun-20	
143			Weeraketiya	Kakunayaya Market to Bhuweliara Road	45	1.00	PS				
144				Maregawa Road	46	0.80	PS				
145			Katuwana	Thorakolayaya - Gammaimpara Road	31	3.10	PS	03-Apr-17	04-Apr-17	04-Apr-20	
146			Weeraketiya	Okandayaya Paluwaththa Road	48	1.50	PS				
147				Gonadeniya – Kaluwagahayaya – Thalawa Road	49	5.20	PS	20-Jun-17	21-Jun-17	21-Jun-20	
148			Walasmulla	Ela Banteka Road (Ela Banteka Para)	37	4.50	PS	19-Jul-17	20-Jul-17	20-Jul-20	
149			Weeraketiya	Kudabibula Lidagawa Road	47	1.10	PS				
150				Perahara Mawatha / Mulkirigala School Road	50	1.40	PS	22-Aug-17	23-Aug-17	23-Aug-20	
151				Katuwewa to Mulgirigala School Road	51	2.80	PS				
152				Wataraua Road	52	3.60	PS	27-Sep-17	28-Sep-17	28-Sep-20	
153			H3	Walasmulla	School to Ela Banteka Para	40	2.30	PS	27-Sep-17	28-Sep-17	28-Sep-20
154				Katuwana	Welipitiya Ambagasara via Siyarapitiya Road	32	8.80	PRDA	30-Sep-17	01-Oct-17	01-Oct-20
155				Walasmulla	Warapitiya Hospital to Karadeniya Road	39	3.20	PS			
Total - Completed Km						445.62					

2.3 Contract Progress

The overall progress of the contracts to 31 December 2018 is shown in Table 2.1. The status of various Contractor submittals required for compliance with the Contract is listed in Table 2.2.

Summaries of activities and progress in each Contract Package are provided as in sub-sections (Tables 2.1- 2.11; Charts 1.1-1.9).



Picture 05. Construction completed road without effect to the waterways – H2 package.

Table 2.1: Overall Progress

Contract No.	Description	Length of Road (km)	Contractor	Commencement Date	Scheduled Completion Date /3 Yr Maintenance	Accepted Contract Amount (Rs. Mil)	Days Worked	Period Elapsed (%)	% Physical Progress		% Financial Progress	
									Target	Actual	Target	Actual
G1	Rehabilitation/ Improvements of 65 Km of rural roads in the Galle District - Contract 1 including Performance Based Maintenance for three years	64.6	K.D.Ebert & Sons Holdings (Pvt.) Ltd	18-May-15	18-May-17 / 18-May-20	1,458.06	1,323	181.0%	100.0%	76%	100.0%	60.1%
G2	Rehabilitation/ Improvements of 63 Km of rural roads in the Galle District - Contract 2 including Performance Based Maintenance for three years	66.0	K.D.A. Weerasinghe & Co (Pvt) Ltd	18-May-15	18-May-17 / 18-May-20	1,483.14	1,323	181.0%	100.0%	100.0%	100.0%	99.5%
G3	Rehabilitation/ Improvements of 74 Km of rural roads in the Galle District - Contract 3 including Performance Based Maintenance for three years	70.8	K.D.A. Weerasinghe & Co (Pvt) Ltd	18-May-15	18-May-17 / 18-May-20	1,733.44	1,323	181.0%	100.0%	100.0%	100.0%	96.8%
M1	Rehabilitation/ Improvements of 98 Km of rural roads in the Matara District - Contract 1 including Performance Based Maintenance for three years	97.5	CML-MTD Construction Ltd	18-May-15	18-May-17 / 18-May-20	2,315.35	1,323	181.0%	100.0%	100.0%	100.0%	109.3%
M2	Rehabilitation/ Improvements of 66 Km of rural roads in the Matara District - Contract 2 including Performance Based Maintenance for three years	68.2	K.D.Ebert & Sons Holdings (Pvt.) Ltd	18-May-15	18-May-17 / 18-May-20	1,803.30	1,323	181.0%	100.0%	92.0%	100.0%	66.6%

Contract No.	Description	Length of Road (km)	Contractor	Commencement Date	Scheduled Completion Date /3 Yr Maintenance	Accepted Contract Amount (Rs. Mil)	Days Worked	Period Elapsed (%)	% Physical Progress		% Financial Progress	
									Target	Actual	Target	Actual
M3	Rehabilitation/ Improvements of 56 Km of rural roads in the Matara District - Contract 3 including Performance Based Maintenance for three years	53.4	K.D.Ebert & Sons Holdings (Pvt.) Ltd	18-May-15	18-May-17 / 18-May-20	1,207.60	1,323	181.0%	100.0%	100.0%	100.0%	91.1%
H1	Rehabilitation/ Improvements of 72 Km of rural roads in the Hambantota District - Contract 1 including Performance Based Maintenance for three years	67.1	K.D.A. Weerasinghe & Co (Pvt) Ltd	18-May-15	18-May-17 / 18-May-20	1,583.59	1,323	181.0%	100.0%	100.0%	100.0%	90.4%
H2	Rehabilitation/ Improvements of 60 Km of rural roads in the Hambantota District - Contract 2 including Performance Based Maintenance for three years	58.0	CML-MTD Construction Ltd	18-May-15	18-May-17 / 18-May-20	1,210.33	1,323	181.0%	100.0%	100.0%	100.0%	108.9%
H3	Rehabilitation/ Improvements of 42 Km of rural roads in the Hambantota District - Contract 3 including Performance Based Maintenance for three years	42.9	R.R Construction (Pvt.) Ltd	18-May-15	18-May-17 / 18-May-20	1,052.14	1,323	181.0%	100.0%	100.0%	100.0%	102.9%
Total		588.5				13,846.95			100.0%	96.4%	100.0%	91.7%

Table 2.2: Contractor Submittals

Description	G1	G2	G3	M1	M2	M3	H1	H2	H3
Work Program / Cash Flow	Approved on 06-Nov-2015	Approved on 12-Nov-2015	Approved on 12-Nov-2015	Approved on 30-Nov-2015	Approved on 06-Nov-2015	Approved on 06-Nov-2015	Approved on 17-Nov-2015	Approved on 17-Nov-2015	Approved on 17-Nov-2015
Method Statements excluding Bridges	Approved on 06-Nov-2015	Approved on 12-Nov-2015	Approved on 12-Nov-2015	Approved on 30-Nov-2015	Approved on 30-Nov-2015	Approved on 30-Nov-2015	Approved on 17-Nov-2015	Approved on 17-Nov-2015	Approved on 17-Nov-2015
Method Statement for Bridges	Submitted (3Nos)	Submitted (2Nos)	Submitted (5Nos)	Submitted (3 Nos)	NA	NA	To be Submitted (2Nos)	To be Submitted (3Nos)	NA
Quality Assurance Plan	Approved on 06-Nov-2015	Approved on 12-Nov-2015	Approved on 12-Nov-2015	Approved on 22-Oct-2015	Approved on 22-Oct-2015	Approved on 22-Oct-2015	Approved on 17-Nov-2015	Approved on 17-Nov-2015	Approved on 17-Nov-2015
Environmental Management Action Plan	Final Report Approved on 21-Sep-2015	Final Report Approved on 06-Nov-2015	Final Report Approved on 22-Oct-2015	Final Report Approved on 28-Sep-2015	Final Report Approved on 19-Oct-2015	Final Report Approved on 02-Oct-2015	Final Report Approved on 17-Sep-2015	Final Report Approved on 14-Sep-2015	Final Report Approved on 17-Sep-2015
Safety Plan	Approved on 06-Nov-2015	Approved on 12-Nov-2015	Approved on 12-Nov-2015	Approved on 22-Oct-2015	Approved on 22-Oct-2015	Approved on 22-Oct-2015	Approved on 17-Nov-2015	Approved on 17-Nov-2015	Approved on 17-Nov-2015

NA – Not Applicable

Chart 1.1: G1 Asphalt Progress Bar Chart

Serial No	DSD	Road ID	Road Name	Road Category	Length (km)	Progress up to end of December 2018									
						1km	2km	3km	4km	5km	6km	7km	8km	9km	10km
1	Neluwa	1	Mavita - Dooliella Road	PS	6.2	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>				
2		2	Batuwangala - Ehalapitiya	PS	1.1	<div></div>	<div></div>								
3		3	Madagama - Ihalamadagama - Puswelkada - Madeegama - Bopagoda	PS	7.3	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>			
4		4	Danawala - Mawita	PS	3.7	<div></div>	<div></div>	<div></div>	<div></div>						
5	Tawalama	5	Batahena - Kudagalpola - Habarakada	PS	9.6	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
6		6	Dharmapala Vidyalaya - Dunhena	PS	1.2	<div></div>	<div></div>								
7		7	Habarakada - Ibbawala Yattapatha	PS	2.9	<div></div>	<div></div>	<div></div>							
8		8	Kumburagoda - Mandalapura	PS	6.4	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>				
9		9	Halwitigala - Janapadaya - Tawalama Mukalana	PRDA	2.8	<div></div>	<div></div>	<div></div>							
10		11	Mandalapura 12th mile post	PS	1.8	<div></div>	<div></div>								
11	Niyagama	28	Kimbulawala - Porawagama Road	PS	3.9	<div></div>	<div></div>	<div></div>	<div></div>						
12		29	Hattaka - Pityagala North Sasanathilaka Mawatha	PS	3.4	<div></div>	<div></div>	<div></div>							
13	Nagoda	30	Kurupanawa Maliban Junction - Old Samurdhi Building Via Polkella	PS	1.2	<div></div>	<div></div>								
14		31	Udugama - Kothalawala Rd	PS	8.0	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>		
15		32	Udugama - Aluthwatta	PS	5.1	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>					
TOTAL					64.6										

Road Works in Progress (63.4km / 15Roads)
 Paving Completed (49.1km / 4 Roads completed)

4/15/1

Paving Completed
 Road Handed Over

Table 2.3: G1 Detail Physical Progress on Road Works

D.S.D	Road Category	ROAD ID No	Length km	Clearing and Grubbing, km	Excavation for Widening, km	Embankment for Widening, km	Sub-Base for Widening, km	GS Shoulder km	Aggregate Base Course, km	MC 30 Prime Coat km	Asphalt Wearing Course km
Neluwa	PS	1	6.2	6.1	6.1	6.1	6.1	6.0	6.1	6.1	6.1
	PS	2	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1
	PS	3	7.3	7.4	7.4	4.1	6.9	2.7	6.9	6.4	6.4
	PS	4	3.7	3.7	3.7	3.6	3.7	3.4	3.7	3.7	3.7
Tawalama	PS	5	9.6	9.6	9.6	5.7	6.5	5.9	7.6	7.4	7.4
	PS	6	1.2	1.2	1.2	-	-	-	-	-	-
	PS	7	2.9	2.9	2.9	0.5	0.4	0.2	0.4	0.4	0.4
	PS	8	6.4	6.4	6.4	6.2	6.4	4.3	6.4	6.2	6.1
	PRDA	9	2.8	1.3	1.3	1.2	1.2	0.2	1.0	1.0	0.9
	PS	11	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Niyagama	PS	28	3.9	3.9	3.8	3.3	2.8	1.5	2.5	2.0	1.9
	PS	29	3.4	3.5	3.5	0.8	1.2	-	-	-	-
Nagoda	PS	30	1.2	1.2	1.2	1.2	1.2	0.8	0.9	0.8	0.8
	PS	31	8.0	8.1	8.1	1.4	2.3	5.0	5.4	7.7	7.5
	PS	32	5.1	5.1	4.8	4.8	4.8	5.1	4.9	5.0	5.0
Totals:			64.6	63.1	62.7	41.9	46.4	38.8	48.7	49.6	49.1
% of Completion:				98%	97%	65%	72%	60%	75%	77%	76%

Chart 1.2: G2 Asphalt Progress Bar Chart

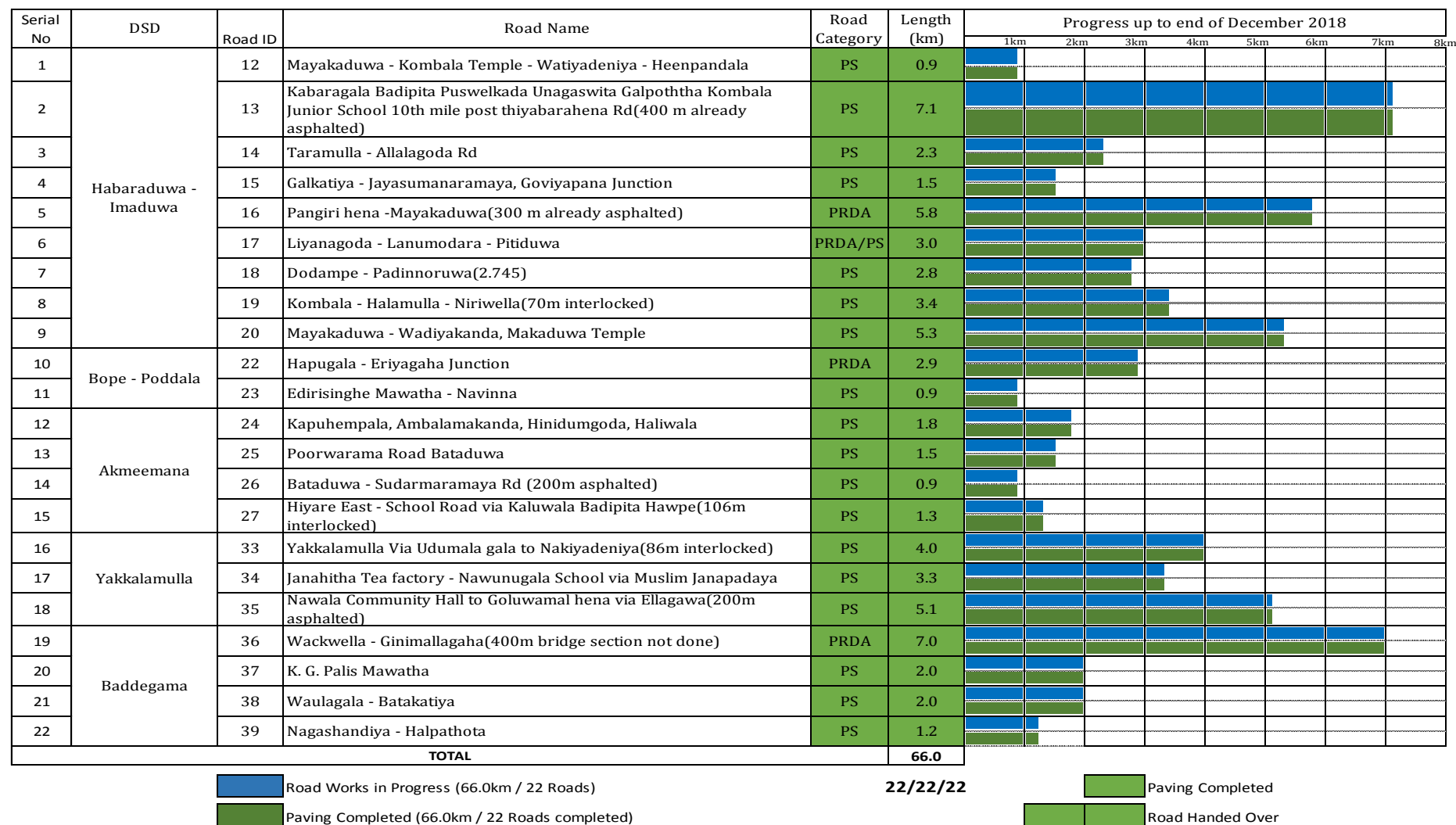


Table 2.4: G2 Detail Physical Progress on Road Works

D.S.D	Road Category	ROAD ID No	Length (km)	Clearing and Grubbing (km)	Excavation for Widening (km)	Embankment for Widening (km)	Sub-Base for Widening (km)	Earthen Shoulder (km)	Aggregate Base Course (km)	MC 30 Prime Coat (km)	Asphalt Wearing Course + Concrete Pavement (km)
Habaraduwa - Imaduwa	PS	12	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	PS	13	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
	PS	14	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	PS	15	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	PRDA	16	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
	PRDA/PS	17	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	PS	18	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	PS	19	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	PS	20	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Bope - Poddala	PRDA	22	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	PS	23	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Akmeemana	PS	24	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	PS	25	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	PS	26	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	PS	27	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Yakkalamulla	PS	33	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	PS	34	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
	PS	35	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Baddegama	PRDA	36	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
	PS	37	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	PS	38	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	PS	39	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Total:			66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0
% Completed:				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chart 1.3: G3 Asphalt Progress Bar Chart

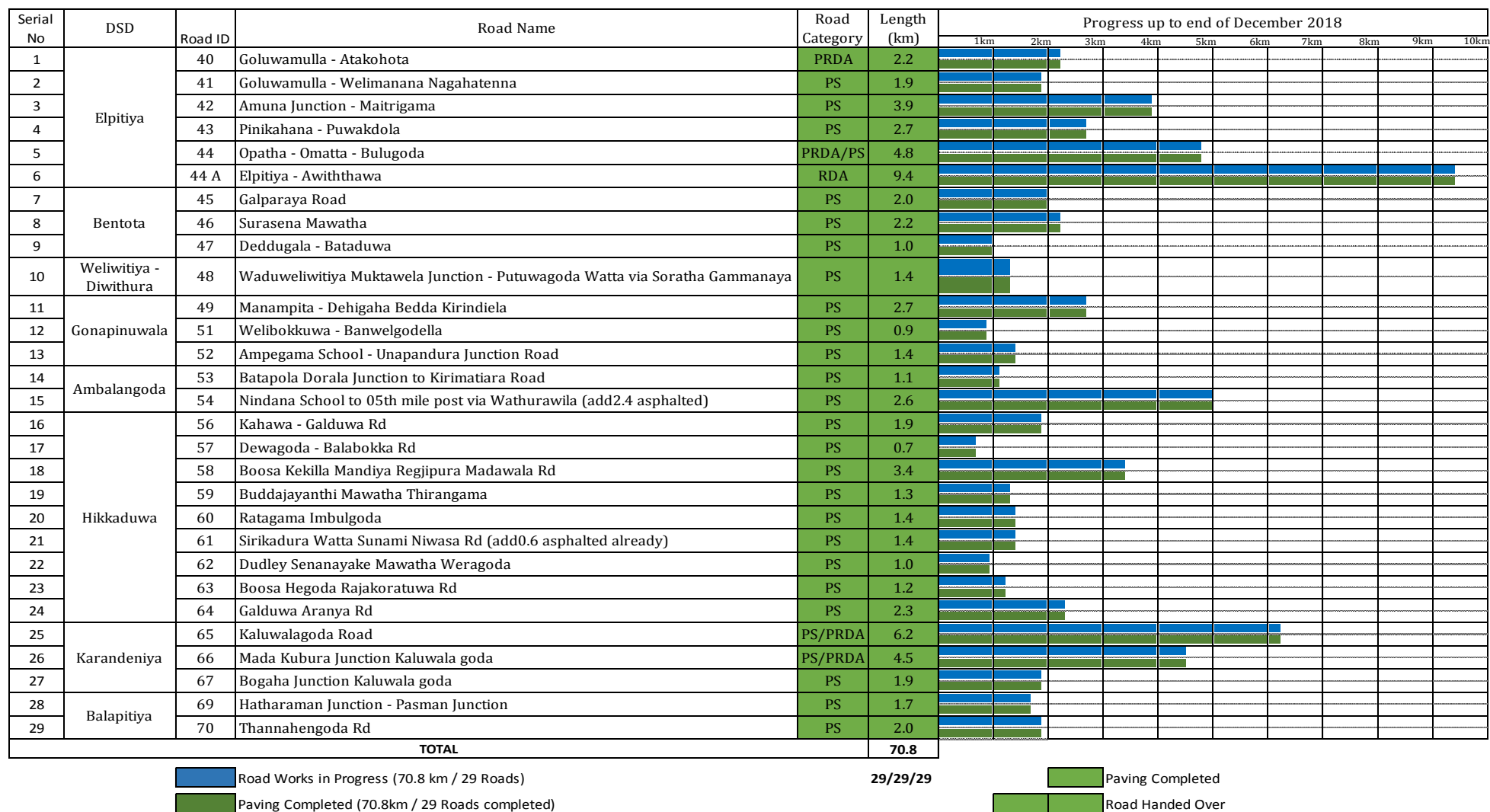


Table 2.5: G3 Detail Physical Progress on Road Works

D.S.D	Road Category	ROAD ID No	Length (km)	Clearing and Grubbing (km)	Excavation for Widening (km)	Embankment for Widening (km)	Sub-Base for Widening (km)	Earthen Shoulder (km)	Aggregate Base Course (km)	MC 30 Prime Coat (km)	Asphalt Wearing Course (km)
Elpitiya	PRDA	40	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	PS	41	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	PS	42	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	PS	43	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	PRDA/PS	44	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	RDA	44A	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
Benthota	PS	45	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	PS	46	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	PS	47	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Weliwitiya – Diwithura	PS	48	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Gonapinuwala	PS	49	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	PS	51	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	PS	52	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Ambalangoda	PS	53	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	PS	54	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Hikkaduwa	PS	56	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	PS	57	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	PS	58	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	PS	59	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	PS	60	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	PS	61	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	PS	62	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	PS	63	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	PS	64	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Karadeniya	PS/PRDA	65	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	PS/PRDA	66	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	PS	67	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Balapitiya	PS	69	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
	PS	70	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Total:			70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8
% Completed:				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chart 1.4: M1 Asphalt Progress Bar Chart

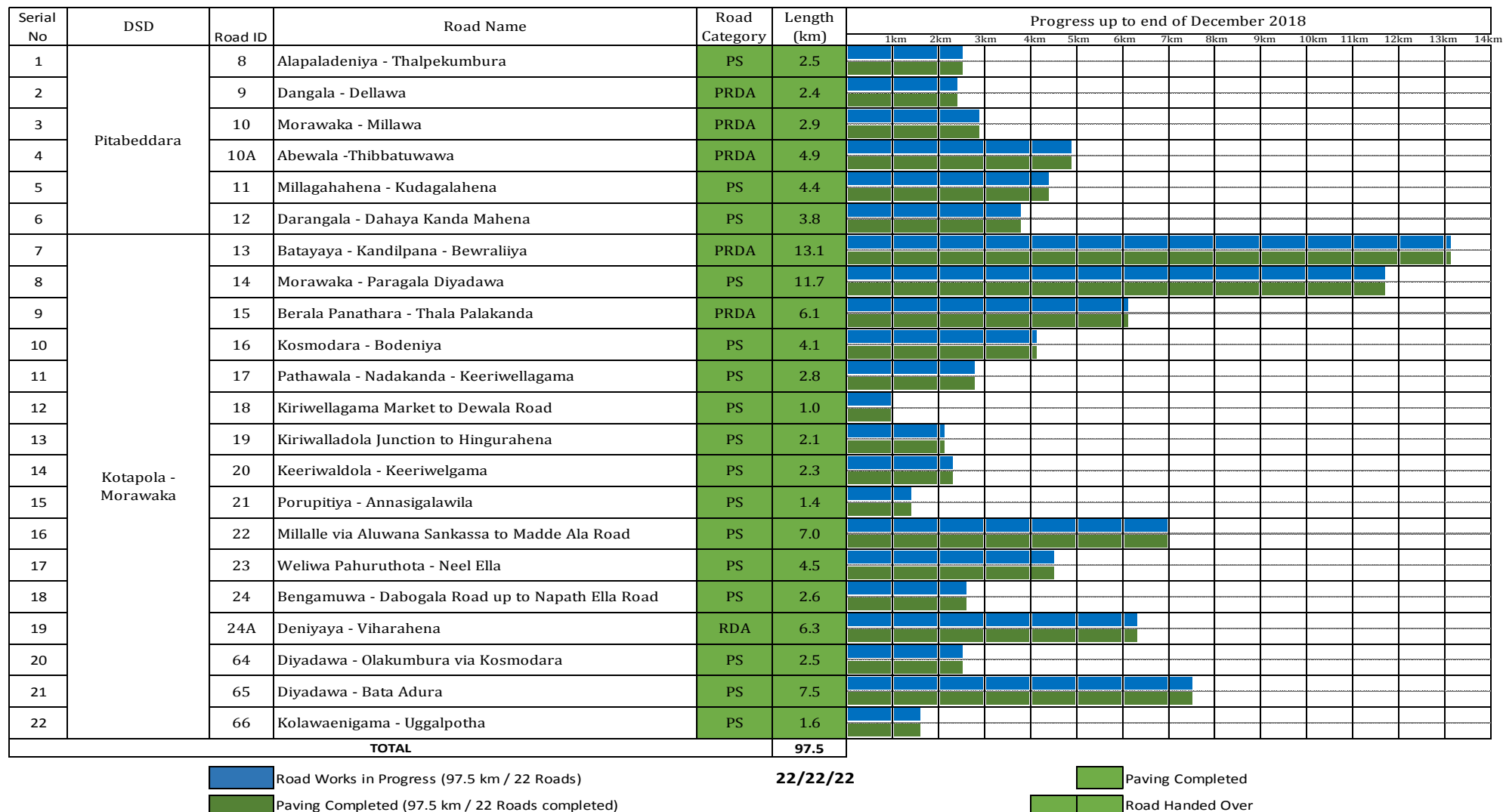


Table 2.6: M1 Detail Physical Progress on Road Works

D.S.D	Road Category	ROAD ID No	Length (km)	Clearing and Grubbing (km)	Excavation for Widening (km)	Embankment for Widening (km)	Sub-Base for Widening (km)	Earthen Shoulder (km)	Aggregate Base Course (km)	MC 30 Prime Coat (km)	Asphalt Wearing Course (km)
Pitabeddara	PS	8	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	PRDA	9	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
	PRDA	10	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	PRDA	10A	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	PS	11	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	PS	12	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Kotapola-Morawaka	PRDA	13	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
	PS	14	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
	PRDA	15	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
	PS	16	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	PS	17	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	PS	18	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	PS	19	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	PS	20	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	PS	21	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	PS	22	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
	PS	23	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	PS	24	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	RDA	24a	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
	PS	64	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	PS	65	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	PS	66	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Totals:			97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
% of Completion:				100.0%	100.0%	100.0%	100.0%	100.0%	100%	100.0%	100.0%

Chart 1.5: M2 Asphalt Progress Bar Chart

Serial No	DSD	Road ID	Road Name	Road Category	Length (km)	Progress up to end of December 2018									
						1km	2km	3km	4km	5km	6km	7km	8km	9km	
1	Akuressa	1	Kohugoda Road	PS	5.5	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>				
2		2	Poramba School - Diyalape Junction via Hikgoda Road	PS	3.7	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>					
3		3	Iluppella - Mahingoda - Bopitiya Road	PS	5.3	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>				
4		4	Akuressa - Katanavila Road	RDA	7.2	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>			
5		5	Paraduwa - Pahuranwila Road	PS	2.4	<div></div>	<div></div>	<div></div>							
6		6	Bangama Junction - Dola Mawatha Road	PS	2.5	<div></div>	<div></div>	<div></div>							
7	Athuraliya	7	Sri Sudarshi Pirivena Junction to Bibulewela Shramadana Road	PS	3.8	<div></div>	<div></div>	<div></div>	<div></div>						
8	Pasgoda	40	Urawa - Pilikannahena Thalgasthenna Rotuba Road	PS	2.6	<div></div>	<div></div>	<div></div>							
9		41	Lew Pothdeniya Road	PS	2.7	<div></div>	<div></div>	<div></div>							
10		42	Urubokka - Pothdeniya Road	PRDA	6.5	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>				
11	Mulatiyana	49	Atapattukanda Handiya - Pothuvila Road	PS	2.5	<div></div>	<div></div>	<div></div>							
12		50	Wilpita - Ukgashena via Ransagoda Galpoththa Junction	PS	8.7	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	
13	Malimboda	51	Agawaththa Thalgahagoda for Jayawardhana Road	PS	1.1	<div></div>	<div></div>								
14		52	Ogaspe Junction to Maligathenna Aththuduwa Road	PS	0.8	<div></div>	<div></div>								
15		53	Pahattu Kade to Nagoda via Welihinda Junction	PS	0.9	<div></div>	<div></div>								
-		54	Sulthangoda Kotavila via Kirimatimulla Road(1.3km)	PS	Omitted										
16		55	Sulthangoda - Welihinna Road	PS	1.3	<div></div>	<div></div>								
17	Hakmana	56	Kongala D. C. Abeywuckrama Road	PS	2.4	<div></div>	<div></div>	<div></div>							
18		57	Obadakanda Badabadda Road	PS	4.5	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>					
19		57A	Thumbe - Kongala Road(2.5 was asphalted already)	PRDA	4.8	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>					
TOTAL					69.2										

Road Works in Progress (69.2km / 19 Roads)
 Paving Completed (60.6km / 11 Roads completed)

11/19/11

Paving Completed
 Road Handed Over

Table 2.7: M2 Detail Physical Progress on Road Works

D.S.D	Road Category	ROAD ID No	Length (km)	Clearing and Grubbing (km)	Excavation for Widening (km)	Embankment for Widening (km)	Sub-Base for Widening (km)	Earthen Shoulder (km)	Aggregate Base Course (km)	MC 30 Prime Coat (km)	Asphalt Wearing Course+Concrete Pavement (km)
Akuressa	PS	1	5.5	5.5	3.9	3.1	2.7	0.1	2.7	1.6	2.6
	PS	2	3.7	3.7	3.7	3.7	3.7	3.7	3.7	2.6	3.7
	PS	3	5.3	5.3	5.3	5.3	4.6	0.7	4.6	4.5	4.6
	RDA	4	7.2	7.2	7.2	7.1	7.1	4.5	6.9	6.9	6.9
	PS	5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.0	2.4
	PS	6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Athuraliya	PS	7	3.8	3.8	3.8	3.7	3.7	2.6	3.7	3.3	3.7
Pasgoda	PS	40	2.6	2.6	2.0	1.2	1.2	-	1.2	-	1.2
	PS	41	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.7
	PRDA	42	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Mulatiyana	PS	49	2.5	2.5	2.5	2.5	1.1	-	1.1	1.1	1.1
	PS	50	8.7	8.7	8.5	8.0	7.8	1.3	7.7	7.7	7.6
Malimboda	PS	51	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	PS	52	0.8	0.8	0.8	0.8	0.8	0.8	0.8	-	0.8
	PS	53	0.9	0.9	0.9	0.9	0.6	0.5	0.6	0.5	0.5
	PS	54	0	Omitted							
	PS	55	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Hakmana	PS	56	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.1	2.4
	PS	57	4.5	4.5	4.5	4.0	4.2	2.9	4.2	4.2	4.2
	PRDA	57A	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.5	4.8
Totals:			69.2	69.2	66.8	64.0	61.2	40.8	60.9	55.1	60.6
% of Completion:				100%	96.5%	92.5%	88.4%	59.0%	88.0%	90.3%	87.6%

Chart 1.6: M3 Asphalt Progress Bar Chart

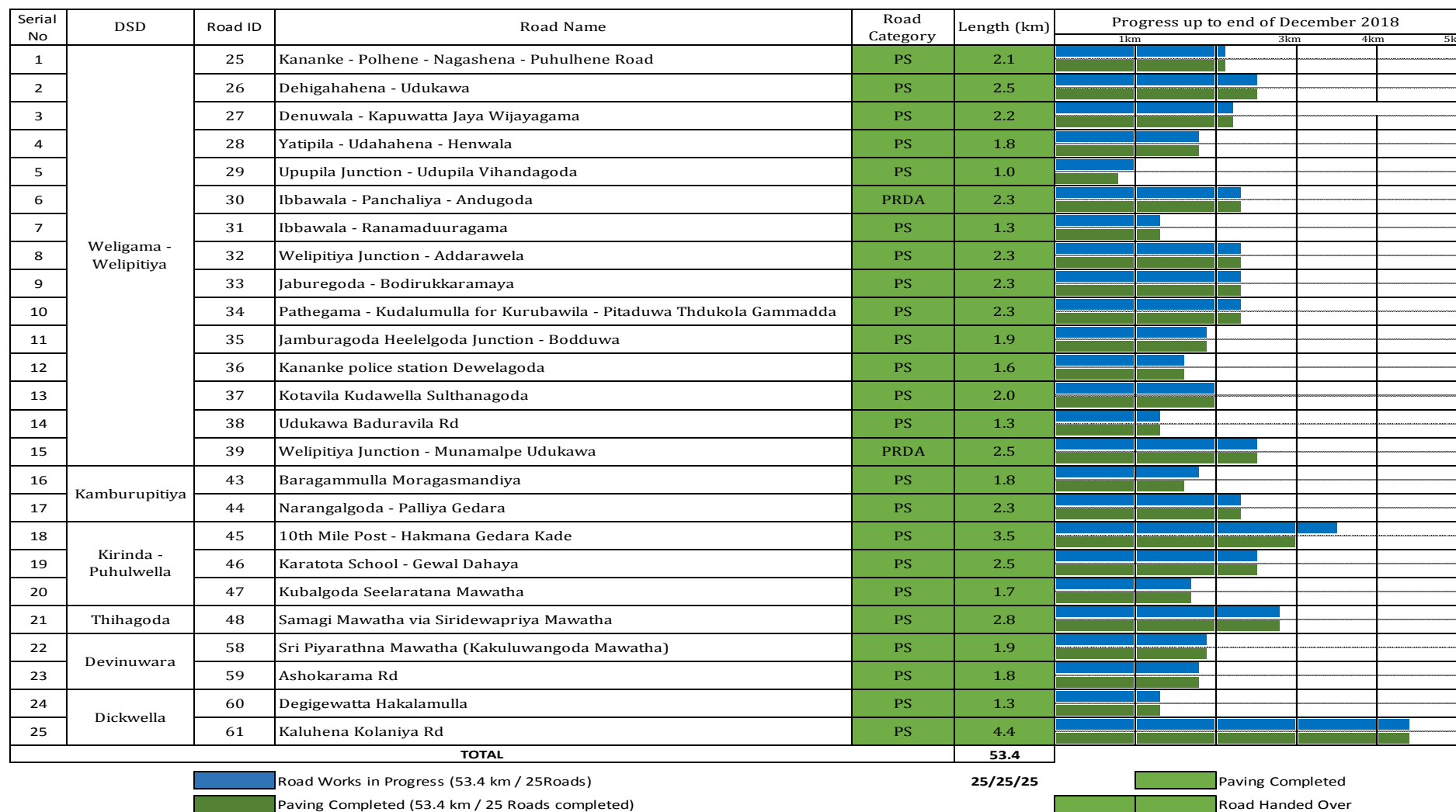




Table 2.8 M3 Detail Physical Progress on Road Works

D.S.D	Road Category	ROAD ID No	Length (km)	Clearing and Grubbing (km)	Excavation for Widening (km)	Embankment for Widening (km)	Sub-Base for Widening (km)	Earthen Shoulder (km)	Aggregate Base Course, (km)	MC 30 Prime Coat (km)	Asphalt Wearing Course + Concrete Pavement (km)
Weligama – Welipitiya	PS	25	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	PS	26	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	PS	27	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	PS	28	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	PS	29	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	PRDA	30	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	PS	31	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	PS	32	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	PS	33	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	PS	34	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	PS	35	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	PS	36	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	PS	37	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	PS	38	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	PRDA	39	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Kamburupitiya	PS	43	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	PS	44	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Kirinda – Puhulwella	PS	45	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	PS	46	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	PS	47	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Thihagoda	PS	48	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Devinuwara	PS	58	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	PS	59	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Balapitiya	PS	60	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	PS	61	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Total			53.4	53.4	53.4	53.4	53.4	53.4	53.4	53.4	53.4
% of Completion:				100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Chart 1.7: H1 Asphalt Progress Bar Chart

Serial No	DSD	Road ID	Road Name	Road Category	Length (km)	Progress up to end of December 2018									
						1km	2km	3km	4km	5km	6km	7km	8km	9km	10km
1	Hambanthota	8	Boralukanda Junction Uda Beragama / Maha Ara Junction	PRDA	3.2										
2		9	4 Ela / School Road	PS	0.9										
3		10	Boondala / Meda Para	PS	1.5										
4		11	Boralukanda Cooperative / Boralukanda Hnadiya (Laksiri Road)	PRDA	0.8										
5		12	Godawaya Junction / Temple Road	PS	1.6										
6		13	Manchgawa Layma Handiya Road	PS	0.8										
7	Tissa	14	Magama Road	PRDA	8.0										
8		16	Sabapathikade / Gonamuwa Hospital Road	PS	1.9										
9		17	Ikkapallama School Road	PS	1.9										
10	Lunugamwehera	18	Diya Bediya Road	PS	1.1										
11		19	Weeravila Ara 01st Cross Road	PS	1.2										
12		20	Ittan wewa 02nd Cross Road	PS	0.6										
13		21	Piyapala Mawatha	PS	2.3										
14	Ambalanthota	26	Eraminiyaya / Hadunkatuwa Road (1.4 km Asphalted)	PS	3.6										
15		27	Thuduwa Mulla / Habarakathawala Goda Koggala Road	PS	6.8										
16		28	Hathagala Handiya / Deniya Pinama / Athbatuwa / Hanunkatuwa	PS	9.7										
17		29	Ridiyagama Livestock Farm / Gangawalana Road	PS	7.7										
18		30	Ridiyagama / Kahabodawila / Thuduwa mulla Road(1km belong to PRDA)	PS/PRDA	6.2										
19	Sooriyawewa	36	Koggala Sooriyawewa Road	PRDA	7.3										
TOTAL					67.1										

 Road Works in Progress (67.1km / 19 Roads)
 Paving Completed (67.1km / 19 Roads Completed)

19/19/19

 Paving Completed
 Road Handed Over

Table 2.9: H1 Detail Physical Progress on Road Works

D.S.D	Road Category	ROAD ID No	Length (km)	Clearing and Grubbing (km)	Excavation for Widening (km)	Embankment for Widening (km)	Sub-Base for Widening (km)	Earthen Shoulder (km)	Aggregate Base Course (km)	MC 30 Prime Coat (km)	Asphalt Wearing Course (km)
Hambantota	PRDA	8	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	PS	9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	PS	10	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	PRDA	11	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	PS	12	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	PS	13	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Tissa	PRDA	14	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	PS	15	Omitted								
	PS	16	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	PS	17	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Lunugamvehera	PS	18	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	PS	19	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	PS	20	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	PS	21	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Ambalamtota	PS	26	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	PS	27	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
	PS	28	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
	PS	29	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
	PS/PRDA	30	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
Sooriyawewa	PRDA	36	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Total:			67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
% of Completion:				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Serial No	DSD	Road ID	Road Name	Road Category	Length (km)	Progress up to end of December 2018															
						1km	2km	3km	4km	5km	6km	7km	8km	9km	10km	11km	12km	13km	14km	15km	16km
1	Beliatta	1	Pattiyawela - Pallattara	PS	3.9	<div></div>	<div></div>	<div></div>	<div></div>												
2		2	Upasakagoda well - Water Tank	PS	1.2	<div></div>	<div></div>														
3		3	Edirisinghe Mawatha	PS	1.2	<div></div>	<div></div>														
4		4	Polapathe watta road	PS	0.9	<div></div>	<div></div>														
5		5	Siyabalapa hena	PS	1.1	<div></div>	<div></div>														
6		6	Anamaduwa - Aranwela(Angulmaduwa-Aranwela)	PS	1.9	<div></div>	<div></div>														
7		7	Pattiyawela - Tharapeliya	PS	1.0	<div></div>	<div></div>														
8	Angunukolap elassa	22	Uswewa - Binkama Road (0.5) by road	PRDA	15.6	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>		
9		23	Dambarella Co-op - Kanabandi Area	PS	4.5	<div></div>	<div></div>	<div></div>	<div></div>												
10		24	Gajanayakagama Debokkawa junction - Gajanayakagama junction	PS	1.9	<div></div>	<div></div>														
11		25	Uswewa via Pahalagama sooriya pokuna junction	PS	6.4	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>									
12	Thangalla	33	Pattiyapola - Marakolliya	PS	3.1	<div></div>	<div></div>	<div></div>	<div></div>												
13		34	Kadurupokuna - Seenimodara road	PS	2.6	<div></div>	<div></div>	<div></div>	<div></div>												
14		35	Pattiyapola - Akkarawela Thalunna	PS	4.2	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>											
15	Okewella	41	Pallekanda junction - Udahatana Gambaddala	PS	1.8	<div></div>	<div></div>														
16		42	Sumihirigama Co-op city - Kukula Mandiya Hena Mahamadiththa	PS	1.9	<div></div>	<div></div>														
17		43	Kadigamuwa Palamkada to Ekamuthu mawatha to Batalawatta	PS	3.7	<div></div>	<div></div>	<div></div>	<div></div>												
18		44	Gonadenihena kanda via Rajapaksha mawatha	PS	1.1	<div></div>	<div></div>														
TOTAL					58.0																
Road Works in Progress (58.0 km / 18 Roads)					18/18	Paving Completed															
Paving Completed (58.0km / 18 Roads Completed)						Road Handed Over															

Table 2.10: H2 Detail Physical Progress on Road Works

D.S.D	Road Category	ROAD ID No	Length (km)	Clearing and Grubbing (km)	Excavation for Widening (km)	Embankment for Widening (km)	Sub-Base for Widening (km)	Earthen Shoulder (km)	Aggregate Base Course (km)	MC 30 Prime Coat (km)	Asphalt Wearing Course & Concrete Pavement (km)
Beliatta	PS	1	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	PS	2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	PS	3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	PS	4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	PS	5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	PS	6	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	PS	7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Angunukolapelassa	PRDA	22	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
	PS	23	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	PS	24	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	PS	25	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Tangalle	PS	33	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
	PS	34	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	PS	35	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Okewella	PS	41	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	PS	42	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	PS	43	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	PS	44	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Total:			58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0
% of Completion:				100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Chart 1.9: H3 Asphalt Progress Bar Chart

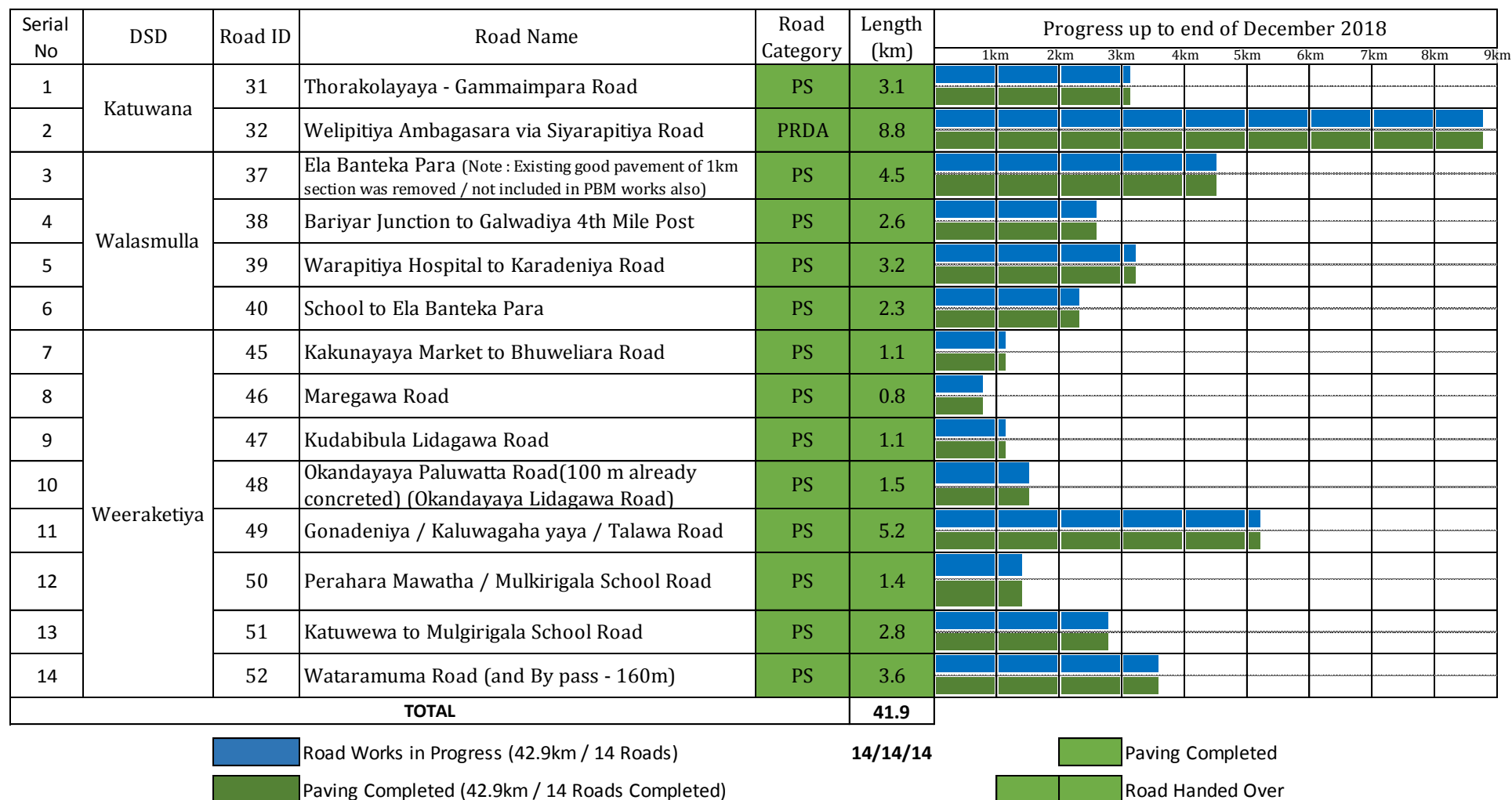


Table 2.11: H3 Detail Physical Progress on Road Works

D.S.D	Road Category	ROAD ID No	Length (km)	Clearing and Grubbing (km)	Excavation for Widening (km)	Embankment for Widening (km)	Sub-Base for Widening (km)	Earthen Shoulder (km)	Aggregate Base Course (km)	MC 30 Prime Coat (km)	Asphalt Wearing Course (km)
Katuwana	PS	31	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
	PRDA	32	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Walasmulla	PS	37	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	PS	38	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	PS	39	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	PS	40	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Weeraketiya	PS	45	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	PS	46	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	PS	47	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	PS	48	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	PS	49	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
	PS	50	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	PS	51	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	PS	52	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total:			42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
% of Completion:				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



3. Compliance with Environment Safeguards Requirements with Respect to Loan Documents

3.1 Environmental Safeguard Compliance Monitoring Complying with Environmental Assessment Review Framework (EARF).

Environmental safeguard is one of the major compulsory component of the iRoad(SP) project and the EARF is prepared to guide selection, screening, categorization, impact assessments, project implementation and monitoring of environment safeguards according to requirements of the GOSL as well as the ADB Safeguard Policy Statement (SPS) for succeeding tranches and their project roads under the investment program. Following requirements must be fulfilled;

1. The National Environment Act (NEA) No. 47 is the key environmental policy framework, which is administered through the Central Environment Authority (CEA) of the Ministry of Mahaweli Development and Environment.
2. Ensure that the Project is complying with ADB's SPS (2009) (TOR 15b (ii)) & EARF for the iRoad project.
3. Assist and guide the Implementing Agency (IA) to ensure compliance of environmental and social safeguard (TOR 15b (ii)).
4. If required, collect baseline data to prepare a Land Acquisition and Resettlement Plan (LARP) and other impact assessments carried out in accordance with ADB's SPS (2009) and relevant laws and regulations of the host country (TOR 15 b (iii), (iv) & (v)).
5. If land donation is necessary, assist IA to prepare and supervise the implementation of the land donation and title transfer process as per Resettlement Framework (RF) [TOR 15 b (iii), (iv) & (v)].
6. Help the Government in establishing a Grievance Redress Mechanism (GRM) and in its proper functioning and management [TOR 15b (vi)].
7. Monitor the implementation of Gender Action Plan (GAP) and ensure activities are carried out as planned and relevant baseline and monitoring database collected (TOR 15b (vii)).
8. Carryout the following duties related environmental safeguard;
 - (a) Ensure that all the environmental mitigation measures required to be implemented are incorporated in the Contract Documents,
 - (b) Supervise and monitor the implementation of Environmental Management Plan (EMP); and,
 - (c) In the event of occurrence of any unexpected environmental impacts, coordinate with the Contractor and Employer to ensure that necessary mitigation measures are implemented;
 - (d) Provide technical advice to the Contractors, if necessary (Pic.06);
 - (e) Prepare periodic monitoring reports monthly and annually and submit to IA; and
 - (f) Facilitate grievance redress in the case of environmental related issues [TOR 15b (viii)].
9. Monitor contractors' compliance with and performance of required actions regarding Human Immunodeficiency Virus (HIV) / Acquired Immunodeficiency Syndrome (AIDS), human trafficking and labour core standards in accordance with the contract documents, such as awareness and education of labourers and workers (TOR 15b(vii) & (ix)). These requirements are fulfilled during either SAPE work stage or being complied with during construction stage (Pic.07).



Picture 06. Safeguard discussion at senior management level- Team Leader's office.



Picture 07. Technical advice and Safeguards inspection at site level- M1 package

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

According to the guidelines set in Facility Administration Manual (FAM), no widening and no roads falling inside protected areas are included in the project in SP.

The PIC ensured that all environment safeguard requirements under the program have been implemented as required by the EARF, respective province level IEE included a standard Environmental Management Plan (EMP), and Environmental Monitoring Plan (EMOP). Environment checklists has been completed for each road in accordance with the actual physical progress. The contractor who is responsible for preparing the final detailed design of the roads, has prepared contract package specific EMPs, EMAPs, SSEMAPs and EMOPs based on the final detailed design and subjected to approval by the PIC and PIU. A provincial level IEER and a standard EMP has been prepared for SP. Contractors have prepared SSEMAPs and EMCs as required.

According to the EMOP plan for monitoring various environment quality parameters and checked the effectiveness of the EMP. It comprised of activities on tested quality of air, water and noise level through laboratory tests and physical monitoring of problems of soil erosion, tree planting and habitat enhancement activities carried out and occupational health and safety issues. Quality testing of air, water, noise level, fauna and flora was outsourced by the contractor to recognized and approved laboratories.

All required clearances, permits and licenses as applicable must be obtained by the project implementation unit (PIU) before start of construction works in the respective road sections. Permits, licenses etc. for activities such as operation of asphalt plants, quarries, borrow areas etc. must be obtained by the contractor before the implementation of the respective construction activity. RDA has obtained a conditional concurrence from CEA for SP project.



Picture 08. Fauna and flora monitoring by PIC- G3 package

4. Monitoring of Environmental Compliance at Field Level



4.1 Staffing of Environment and Safety Officers.

All construction and related works were monitored according to Environmental Management Action Plan (EMAP) submitted by contractor's environmental officer in each package and contractors' Environmental and Safety Officers followed it on a daily basis, under the supervision and guidance of Environmental Specialist (ES) of PIC and his supporting staff in each District. ES made regular field inspections and monitoring visits to Galle, Matara and Hambantota districts, and has given instructions and correction procedures where found necessary, with regards to environmental and safety mitigation actions. In addition to above system, each District comprised one Environment Assistant (EA) based in ARE office-Hirimbure, RE office Akuressa and RE office Agunukolapelessa respectively. They were coordinating in each District contract packages regarding environment, safety/health and social components.

Staffing of contractors' environment and safety officers were approved in a systematical manner. Initially, Curriculum Vitas (CV's) of environment and safety officers were approved by the PIC. Then PIC has given induction sessions to all officers regarding environmental safeguards. Finally, onsite trainings programs were conducted in their respective contract packages. During the contract period, PIC organized 19 nos. of workshops to educate and increase awareness among PICs, PDs' and contractors' team.

Following tables show the recruited safeguards officers in PIU, PIC (Table 03.) and of each contract package [(Table 04.), total number of environmental, health and safety officers trained up to 31 Dec 2018)].

Table 03. Details of the staffing and training conducted for the PIU and PIC up to 31 Dec 2018

Institution/ Location	Officer's Name	Designation	Start Date	End Date/Status	# Awareness Programs Participated (W) and special meetings (M) regard environment safeguards
RDA-PD office Matara	Miss. Madushani Silva	Environment Safeguard Assistant	23.06.2016	31.10.2017	8 W & 3 M
PIC-TL office Matara	Mr. Roshan K Rodrigo	Environmental Specialist	02.07.2015	On duty	16 W & 7 M
	Mr. Amith Bandara	Environment Officer	18.08.2015	On duty	14 W & 7 M
PIC-RE-Galle office	Mr. Nalaka Siriwardena	Env. Assistant	05.02.2016	01.07.2016	3 W & 2 M
	Miss. Sawini Sewwandi	Env. Assistant	01.07.2016	On duty	7 W & 3 M
PIC-RE-Matara office	Miss. Thakshila Shipadi	Env. Assistant	19.03.2016	31.03.2017	9 W & 4 M
	Miss. H. R. H. Imalka	Env. Assistant	06.02.2017	09.08.2018	9 W & 4 M
	Miss. Ganga Sadaruwani	Env. Assistant	06.09.2018	On duty	1 W & 2 M
PIC-RE- Hambantota office	Miss. Lakmini Wickramasinghe	Env. Assistant	17.03.2016	03.08. 2016	9 W & 4 M
	Miss. Anuradha Wijesinghe	Env. Assistant	03.08. 2016	30.09.2016	1 W & 0 M
	Miss. S. Munasinghe	Env. Assistant	01.12.2016	31.12.2016	1 W & 0 M
	Mr. Prince Manamperi	Env. Assistant	22.06.2017	On duty	7 W & 3 M



Miss. Madushani Silva



Mr. Roshan K. Rodrigo



Mr. Amith Bandara



Mr. Nalaka Siriwardena



Miss. Sawini Sewwandi



Miss. Thakshila Shilpadi



Miss. H. R. H. Imalka



Miss. Lakmini
Wickramasinghe



Miss. Anuradha
Wijesinghe



Miss. S. Munasinghe



Mr. Prince Manamperi



Miss. Ganga Sadaruwani

Table 04. Details of the staffing and training conducted for the contractors.

Contract Package	Officer's Name	Designation	Start Date	End Date/Status	# Awareness Programs Participated (workshops and special meetings regard environment safeguards)
G1	Mr. Udara Senananyake	Env. & Safety Officer	24.09.2015	18.11.2016	7W & 3M
	Mr. S.H.P.Udayanga	Env. & Safety Officer	18.11.2016	On duty	3W & 2M
G2	Mr. T.P Tharanga	Env. & Safety Officer	23.09.2015	15.06.2017	7W & 3M
	Mr. H.V Amila Chinthaka	Env. Officer	15.09.2017	On duty	7W & 3M
G3	Mr. Rasanga Weligala	Env. & Safety Officer	24.09.2015	12.09.2016	5W & 3M
	Mr. Mathisha Menuka	Env. & Safety Officer	12.09.2016	31.12.2016	1W & 1M
	Mr. I. V. Samantha kumara	Safety Officer	02.06.2015	On duty	4W & 4M
M1	Mr. Ajith Kumara Ranaweera	Env. Officer	23.09.2015	On duty	7W & 5M
	Mr. P.D.N.N.Janaka	Safety Officer	06.06.2016	22.02.2016	3W & 1M
M2	Mr. R. Dayarathne	Env. Officer	10.07.2015	03.01.2016	4W & 1M
	Mr. M.A.S Maddumage	Env. Officer	03.01.2016	18.11.2016	3W & 3M
	Mr. M. S. Mohomad Fasly	Env. Officer	18.11.2016	On duty	2W & 2M
	Mr. O.M Senarathne	Safety Officer	02.09.2016	31.12.2016	3W & 1M
M3	Mr. Prasanna Gunasekara	Env. Officer	23.09.2015	31.11.2016	7W & 4M
	Mr. P.D.S Nissanka	Safety Officer	02.06.2015	27.02.2016	3W & 2M
	Miss. Nimanthika Wijesooriya	Env. Officer	13.03.2017	On duty	2W & 1M
	Mr. K.J.P.D Silva	Safety Officer	01.09.2016	On duty	6W & 4 M
H1	Mr. Manjula Andrahendri	Env. & Safety Officer	23.09.2015	On duty	7W & 4M
H2	Mr. Roshan Wejesuriya	Env. & Safety Officer	23.09.2015	On duty	7W & 4M
H3	Mr. Chaturanga Hatnagoda	Env. & Safety Officer	23.09.2015	08.08.2016	6W & 3M
	Mr. Chaminda Pushpakumara	Env. & Safety Officer	08.08.2016	31.01.2018	2W & 2M



Mr. Udara Senanayake



Mr. S.H.P Udayanga



Mr. T.P Taranga



Mr. H.V Amila Chinthaka



Mr. Rasanga Weligala



Mr. Mathisha Menuka



Mr. I. V. Samantha
Kumara



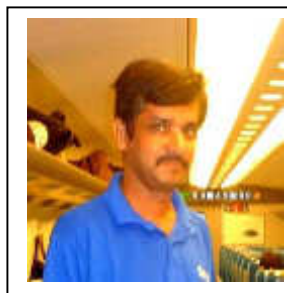
Mr. Ajith Kumara



Mr. P. D. D.N Janaka



Mr. R. Dayarathne



Mr. M.A.S Madumage



Mr. M.S. Mohomad



Mr. O. M. Senarathne



Mr. Prasanna
Gunasekara



Mr. P.D.S Nissanka



Mr. Manjula
Andrahendri



Mr. Roshan
Wejsooriya



Mr. Chaturanga
Hathnagoda



Mr. Chaminda
Pushpakumara



Mr. K.J.P.D Silva



Miss. Nimanthika
Wijesooriya

4.2 Review, Approval of EMAP, SSEMAP and EMC and Document Keeping.

Typical formats for EMAPs', SSEMAPs' and EMCs' distributed among contractors' and informed them to fill up information as required by PIC. The draft EMAPs' SSEMAPs' and EMCs' reports are reviewed on site by Environmental Specialist (ES), Environmental Assistant (EA) and with respective officers. Final EMAPs, SSEMAPs' and EMCs' reports were approved by PIC-ES for construction activities (Table 05). Approved documents are kept at TL, REs and respective contractor offices for information. Following figure 02 shows the documentation process in a diagrammatically.

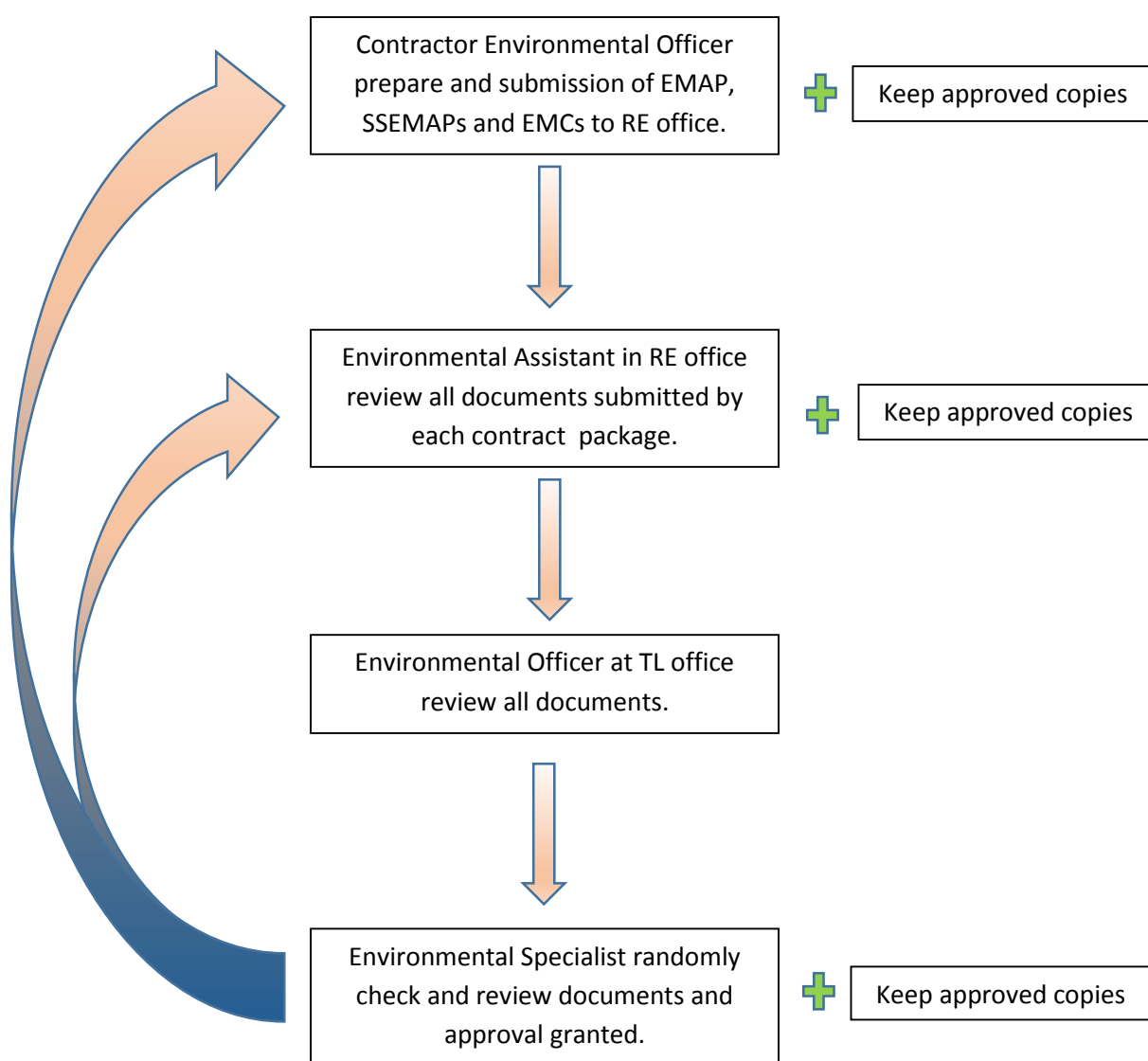


Figure 02. Review, approval of EMAP, SSEMAP and EMC and documentation process

4.3 Preparing of Environmental Monitoring Checklist (EMC).

EMCs were prepared for each road in pre-construction and construction stages for all 9 contract packages. Before the construction starts pre-construction stage, EMCs' were approved for all roads in each package (Pic. 09). Construction stage EMC's were prepared in four segments according to road construction physical progress, which was at 25%, 50%, 75% and 100%. Post construction EMC's were completed according to the road handing over progress in each package. Documentation completed in G2, G3, M1, M3, H1, H2 and H3 packages. (Table 05).



Picture 09. Examples of EMAPs, SSEMAPs and EMCs

Table 05: Status of the EMAPs, SSEMAPs and EMCs approved by PIC and indicate as road ID's (31 December 2018)

Package	EMAP	SSEMAP	EMC					Post- Construction
			Pre- Construction	Construction stage				
				25%	50%	75%	100%	
G1	Approved for all roads	Approved for all roads	Approved for all roads	Approved for 1, 2, 3, 4, 5, 8, 9, 11, 28, 30 & 32 roads	Approved for 1, 2, 3, 4, 8 & 11 roads	Approved for 1, 2, 4 & 11 roads	None	None
G2	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	None
G3	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	None
M1	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	None
M2	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads except 6, 40 49 & 52	Approved for all roads except 1, 6, 7, 49, 50, 52, 53, 55 & 57	Approved for 42 road	None
M3	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	None
H1	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	None
H2	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	None
H3	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	Approved for all roads	None

4.4 Status of licenses, approvals and consent letters.

Table 06: Summary of license, approvals and consent letters obtained for materials extraction, plants and disposal sites in each contract packages (up to 31 December 2018)

Package	Material/Plant	Location	Ownership	Capacity/Extent/Source	Details of the neighboring lands	Reference/Status
G1	Soil	Pamankada, Neluwa (Selected location)	Ms. Latha Athapattu	01 acre	North-Home garden, East-Natural Stream called Ranketa Ela, South-Home garden, West Neluwa - Palawatta main road.	Not functioning/ remediated according to the agreement.
	Sand	Diganawatta, Hiniduma	G L Damith Rangana	Ging Gaga (500 m from location to both direction)	North-Small Tea land, East- Home garden, South-Tea Land, West -Ging Gaga embankment.	AL/B/MT/173/LR/03 expired on 16.09.2016. Not functioning.
	Metal	Thudugala Estate, Thudugala Dodangoda	M/S Metal Quarry Sunbee Granite Project (Pvt) Ltd	16 acres	North-small water fall, East-Forest area, South-Asplnt plant & crusher, West-Rubber estate	(No:00376) expired on 23.06.2017, Not functioning.
	ABC	Thudugala Estate, Thudugala Dodangoda	K D Ebert & Sons Holding (Pvt) Ltd	3.5 acres	North-Quarry, East-Naboda-Dodangoda Road, South-Palm oil plantation, West-Rubber plantation	Renewed (04481).
		Thudugala Estate, Thudugala Dodangoda	K D Ebert & Sons Holding (Pvt) Ltd	3.5 acres	North-Quarry, East-Naboda-Dodangoda Road, South-Plam oil plantation, West -Rubber plantation	Renewed (No: 05067).
	Concrete	Batching plant not operated. Concrete mixtures operated on site.				
	Water	Batuwangala-Ehalapitiya Road, 2nd Natural Stream Just pass the School	Divisional Secretariat	Small stream	North-Batuwangala- Ehalapitiya Road & Small Tea land, East - Batuwangala- Ehalapitiya Road, South-Private road, West -Paddy field	Approval received from Divisional Secretary- Elpitiya.
		Neluwa-Palawatta road, Pamankada. Near stockyard.	Divisional Secretariat	Natural Stream-Rankata Ela	North-Home garden, East - Batuwangala- Ehalapitiya Road, South-Private road, West -Paddy field	Approval received from Divisional Secretary.
		Mavita -Doolialla Road at 1st small bridge	Divisional Secretariat	Natural stream	North- Small tea lands, East - Road, South-Mavita -Doolialla road, West - Small tea land	Approval received from Divisional Secretary
	Disposal sites	Small-scale sites were selected at desire locations, consent letters obtained from the landowners and Grama Niladari.				

G2	Soil	Akmeemana	Akmeemana Pradeshiya sabhawa	0.5 acre	Road Abandoned land Barron land Disturbed forest	Remediated.
	Metal	Batapola	KDA Weerasinghe	2.5 acre	Disturbed forest Abandoned land	Material supplying completed for iRoad, operates for other projects.
	Asphalt	Batapola	KDA Weerasinghe	2.5 acre	Disturbed forest Abandoned land	Material supplying completed for iRoad, operates for other projects.
	ABC	Batapola	KDA Weerasinghe	2.5 acre	Disturbed forest Abandoned land	Material supplying completed for iRoad, operates for other projects.
	Disposal	Small-scale sites were selected at desire locations, consent letters obtained from the landowners and Grama Niladari. Sites are all remediated and closed.				
G3	Metal	Neboda Quarry	KDA Weerasinghe	3 acres	Rubber plantations and scrublands	Material supplying completed for iRoad, operates for other projects.
		Batapola Quarry	KDA Weerasinghe	-	Cinnamon plantations	Material supplying completed for iRoad, operates for other projects.
	ABC	Kumbaduwa Crusher Plant	KDA Weerasinghe	1.2 acres	Private Paddy field lands, approximately 100m away from the Quarry site	Material supplying completed for iRoad, operates for other projects.
		Neboda Quarry	KDA Weerasinghe	3 acres	Rubber plantations and scrublands	Material supplying completed for iRoad, operates for other projects.
		Batapola Quarry	KDA Weerasinghe	-	Cinnamon plantations	Material supplying completed for iRoad, operates for other projects.
	Asphalt	Neboda Quarry	KDA Weerasinghe	3 acres	Rubber plantations and scrublands	Material supplying completed for iRoad, operates for other projects.
		Batapola Quarry	KDA Weerasinghe	-	Cinnamon plantations	Material supplying completed for iRoad, operates for other projects.
	Concrete	Kurudugaha hathakma Batching Plant & Precast yard	KDA Weerasinghe	2.1 acres	Most of surrounding area is Cinnamon lands and Ambalangoda side of the land is having a bare land	Material supplying completed for iRoad, operates for other projects.
	Water	Nearby 7/7 Bridge at Elpitiya - Awiththawa road	Government reserved area	Natural stream	Bare land and some paddy field area at down stream	Approval obtained by DS, extraction is completed.
	Disposal	Small-scale sites were selected at desire locations, consent letters obtained from the landowners and Grama Niladari. Sites are all remediated and closed.				
M1	Soil	Paragala School Ground	Ministry of Education (Provincial Council)	50P	Road, school garden and tea estate	Remediated.
	ABC	Lakshawaththa, Thudugala, Dodangoda	CML-MTD	-	Bare lands	Material supplying completed for iRoad, operates for other projects.
		Samodagama Bandiyakanda, Hambantota	CML-MTD	-	Bare lands	Material supplying completed for iRoad, operates for other projects.
		Dankaluwa Pitabeddara	S. Kaluarachchi	-	Isolated forest area	Approved and expired on 11/03/2016, Not in use.

		Mawaralawatte, Mawarala	S.I Witharana	-	Tea estate and isolated forest area	Approved and expired on 18/02/2016, not functioning.
		Kalugalwilahena Kiriwelkale Darangala	M.P Sarathchandra	-	Cinnamon garden	Approved and expired on 18/05/2017, Not in use.
	Asphalt	Hambanthota	CML-MTD	-	Bare land	Material supplying completed for iRoad, operates for other projects.
		Dodangoda	CML-MTD	-	Bare land	Material supplying completed for iRoad, operates for other projects.
	Concrete	Produce on site by mixtures				
	Disposal	Small-scale sites were selected at desire locations, consent letters obtained from the landowners and Grama Niladari. Sites are all remediated and closed.				
M2	Soil	Eramudugoda State (G.S.Division) Neraluwa Village	N.W.Gunasekara	2.3 acres	Road and bare lands	Approval obtained.
	Metal	Bangama, Akuressa	Upali Kodagoda	10 acres	Barren lands	Approval obtained.
	ABC	Pallaththara	A.M.Kapila Priyadarshana	3 acres	Barren lands	Approved and expire on 12/09/2016, Not in use.
	Asphalt	Modarawana, Beliatta.	K.D.Ebert & Sons Holding (pvt) Ltd	6.1 acres	Coconut and scrublands	Approval obtained.
	Concrete	Eramudugoda State (G.S.Division) Neraluwa Village	N.W.Gunasekara	2.3 acres	Scrublands and road	Approval obtained.
	Water	Akuressa Katanvila Road 3+300	Irrigation department	River canal	Bare lands	Irrigation Department consent letter.
	Disposal	Small-scale sites were selected at desire locations, consent letters obtained from the landowners and Grama Niladari.				
M3	Soil	Kokmaduwa	Privet	-	Bare land	Approval obtained, remediated, not in use.
	Metal	Welipitiya	Game Metal Crusher	-	Bare land	Material supplying completed for iRoad, operates for other projects.
	ABC	Neboda	KDESH	2 acres		Material supplying completed for iRoad, operates for other projects.
		Beliatta	Private (Kapila Metal Crusher)	2 acres	Coconut plantation	Approval obtained.
	Asphalt	Neboda	KDESH	2 acres		Obtained approval.
	Disposal	Small-scale sites were selected at desire locations, consent letters obtained from the landowners and Grama Niladari. Sites are all remediated and closed.				
H1	Soil	Hatagala temple, Hungama	Hatagala temple	1.5 acres	Temple, road and secondary forest	Remediated, not in use.
	Metal	Rathna construction metal crusher, NO 09, Mayurapura, Hambantota	K.G. Rathna kumara, Rathna Metal Crusher, Bata ata, Hungama	2 acres	N-State land, E-State land, S-Metal quarry land W-state	Material supplying completed for iRoad, operates for other projects.

		Kariyamadiththa, Thalawa, Nugekoratuwa, Angunakolapelassa	Kamal Dharmajith Samarasinghe, Sinhagiri, Thalawa, Kariyamadiththa	1.5 acres	N-State land, E-State land, S-Access road, W-state land	Material supplying completed for iRoad, operates for other projects.
	ABC	Rathna construction metal crusher, N0 09, Mayurapura, Hambantota	K.G. Rathna kumara, Rathna Metal Crusher, Bata ata, Hungama	2 acres	N-State land, E-State land, S-Metal quarry land, W-state	Material supplying completed for iRoad, operates for other projects.
		Kariyamadiththa, Thalawa, Nugekoratuwa, Angunakolapelassa	Kamal Dharmajith Samarasinghe, Sinhagiri, Thalawa, Kariyamadiththa	1.5 acres	N-State land, E-State land, S-Access road, W-state land	Material supplying completed for iRoad, operates for other projects.
	Asphalt	Rathna construction metal crusher, N0 09, Mayurapura, Hambantota	K.G. Rathna kumara, Rathna Metal Crusher, Bata ata, Hungama	2 acres	N-State land, E-State land, S-Metal quarry land, W-state	Material supplying completed for iRoad, operates for other projects.
	Disposal	Small-scale sites were selected at desire locations, consent letters obtained from the landowners and Grama Niladari. Sites are all remediated and closed.				
H2	Soil	Debokkawa	Mr. Chinthaka	4 acres	Scrublands	Remediated, not in use.
		Uswewa Binkama, Adjust land to B/Gurugodalla W.K.V	Hanguranketha, Weerasinghe Kanishta Vidyalaya	1 acre	North-Gurugodalla School, South-Houses, East-Priavte land, not functioning West- 100m away small stream	Remediated, not in use.
	Metal	Samodhagama, Maha wali land, Bondiya Kandha.	C.K Dissanayake	2 acres	There is no residence in the circular area with the radius of 500m (forest area)	Remediated, not in use.
	Concrete	K.A.P.M Weerasena, Kaluwalawewa Road, Bolhida, Koggala, Ambalanthota	CML-MTD Construction LTD.	-	There is no any houses in the circular area with the radius of 100m (duff area)	Material supplying completed for iRoad, operates for other projects.
	Asphalt	K.A.P.M Weerasena, Kaluwalawewa Road, Bolhida, Koggala, Ambalanthota	CML-MTD Construction LTD.	-	There is no any houses in the circular area with the radius of 100m (duff area)	Material supplying completed for iRoad, operates for other projects.
	Disposal	Small-scale sites were selected at desire locations, consent letters obtained from the landowners and Grama Niladari. Sites are all remediated and closed.				
H3	Soil	Debokkawa	Mr. Chinthaka	4 acres	Scrublands	Remediated, not in use.
	Metal	Maha ellala, Hambanthota	Chanaka metal crusher	1 acre	surrounding area covered with scrub forest	Material supplying completed for iRoad, operates for other projects.
	ABC	Ellalla, Hambanthota	Tharaka dilshan	1 acre	Surrounding area covered with secondary forest	Material supplying completed for iRoad, operates for other projects.

	Asphalt	Buweli ara	RRC	10 acres	Surrounding area covered with secondary forest	Material supplying completed for iRoad, operates for other projects.
	Concrete	Buweli ara	RRC	10 acres	Surrounding area covered with secondary forest	Material supplying completed for iRoad, operates for other projects.
	Disposal	Small-scale sites were selected at desire locations, consent letters obtained from the landowners and Grama Niladari. Sites are all remediated and closed.				

4.5 Remediation work done for borrow pits, stockpiles, disposal sites and yards.

Remediation works have been carried out in all packages to the satisfaction of the, PIU, PIC and the landowners. Here contractors' environmental officers have taken landowners consent in writing that the remediation work has been carried out at a satisfactory level agreed by all parties. Following are some of remediated sites in each district (Pics.10-11).



Picture 10. Burrow pit at Kombala school playground before remediation- G3 package.



Picture 11. Burrow pit at Kombala school playground after remediated- G3 package.

4.6 Establishing of public notices

- Public awareness

In addition to the community awareness meetings held at the commencement of the project, a public notice developed in local language was 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 what extent the community can be involved in project activities and how to make complaints, 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 (Pic.12).

- Channels of receiving public grievances

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 can follow any of the following channels in submitting their complaints/ grievances/ suggestions or requests to the project.

- Complaints & suggestion boxes

Availability of complaint & 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/ suggestions are collected from the box at the end of each day.

- Office of Grama Niladhari (GN)

Grama Niladhari is the Government Administrative Officer at Grama Niladhari 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 is also displayed at each GND offices in the project area.

- Office of the Divisional Secretary

Divisional Secretary (DS) is the Government Administrative Officer at Divisional Level. DS also plays the role of Chairman of Grievance Redress Committee (GRC) established under the project at Divisional Secretary level (DSD)). A public notice is also displayed at each DS offices in the project area.

In addition to the above channels, all the field staff of the project is instructed to accept public grievances and hand them over to the Project Engineer (PE)/ Environment Officer (EO) /Social Safeguard Officer (SSO) of PIU on the same day or the following day for further action.

- Maintenance of Records for Public Grievances

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

It was evident that this mechanism is very effective and shown better results. All the grievances received were classified according to the nature, as complaint, suggestions, request, and improvements.

Grievances from the affected people on social and environmental issues during project implementation were 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 root level where complaints are directly received and addressed by the contractor, PIC or PIU representative on site.

Grievances, which were simple but still, cannot be addressed at the grass root level were escalated addressed at the Grama Niladhari Division (GND) level. More complex grievances, which cannot be addressed at the GND level were escalated addressed at the Divisional Secretariat Division (DSD) level. There was a Grievance Redress Committee (GRC) at the GND and DSD levels. Very few grievances (3 nos.) which could not be addressed at DS level were escalated to Chief Secretary (SP) level and satisfactory solution were obtained. The public also can complaint directly to the RDA through their web site using <https://iroadinfo.rda.gov.lk/publiccontact/>

Composition of GND level the GRC members were Grama Niladhari of the area (Chairman), Representative of PIU (Secretary), Representative of Supervision Consultant (Member), Representative of Contractor (Member), A community member/religious leader (Member), Female representative from the local community (Member). Composition of DSD Level GRC members were Divisional Secretary of the area (Chairman), Representative of PIU (Secretary), Grama Niladhari (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 Female representative from the local community (Member).

To make the GRM process gender responsive the GRC included one female member to represent the local female community. Further, when grievances or complaints are submitted to the GRC, both female and male complainants are treated equally and necessary measures are taken to address the grievance in the best way possible. This system followed the guidelines given in the EARF.

Recommended steps with timeline on the operation of the GRM is shown in figure 03. In addition, a complaints contact person was designated within the PIU to help address all concerns and grievances of the local communities and affected parties. Contact details of this person was provided in the project information display board that is placed at the project site. The flow chart of the GRM is presented in figure 03.



Picture 12. iRoad project public notice at Grama Niladhari Office- G1 package.



Picture 13. Attending to a public complain- G1 package



Picture 14. Field inspection for public complain brought at the GRC- M2 package.

4.7 Consultation, Information Disclosure and Grievance Redress Mechanism

The public consultation and information disclosure is 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.

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.

Consultations has carried out in an environment free of influences and done during conduction of transect walks while completing the environment checklists and/or through focus group discussions and/or household level or key person interviews which starts with the description of the project road design and initial identification of potential impacts. Feedback and recommendations received during the consultations have addressed and where relevant incorporated in the Detail Design Stage.

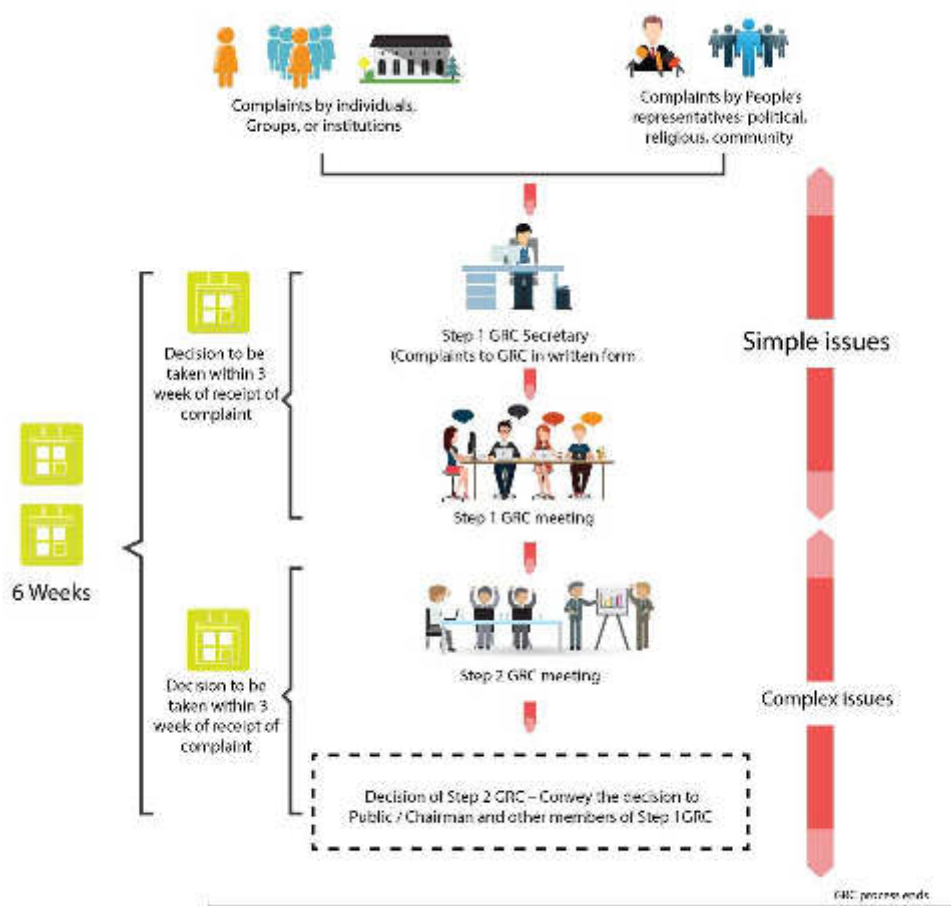


Figure 03. The flow chart shows of the GRM process adapted in to the iRoad(SP)

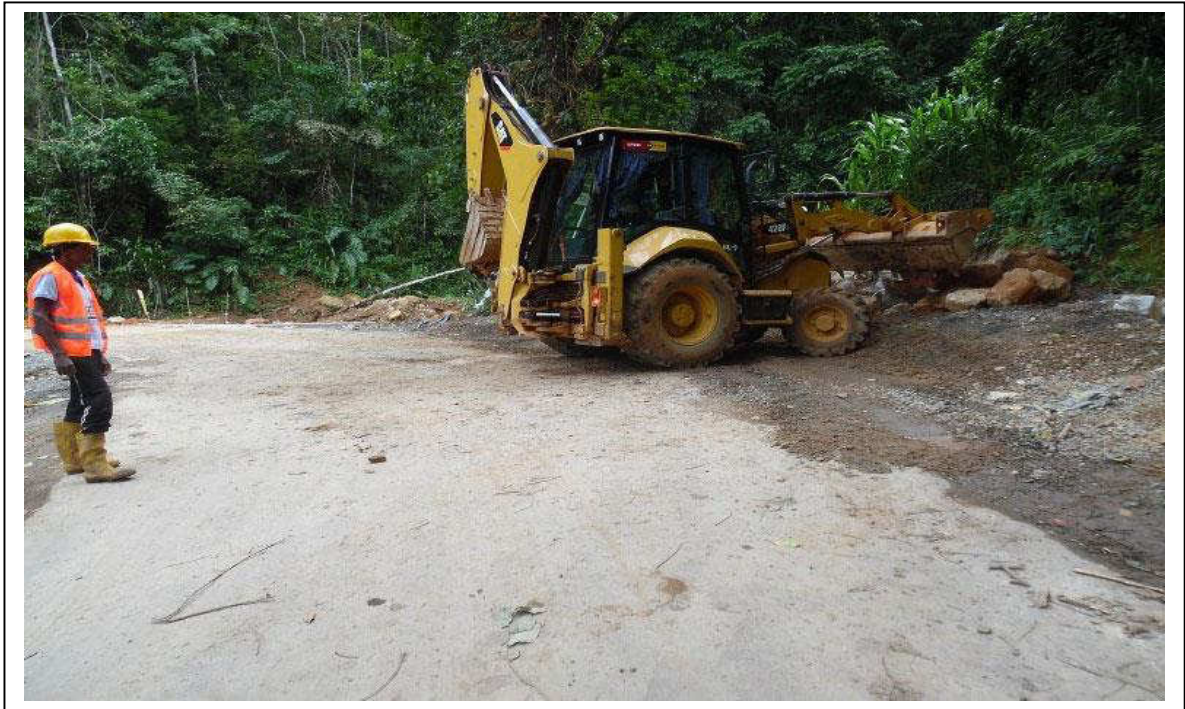
4.8 Environmental Monitoring Structure and Site Inspection

Daily supervision and guidance were done in each contract package by environmental specialist (PIC), environment officer (PIC) and environmental and safety officers (15 nos., contractors).

Regular site inspections (every 4-6 week) were jointly conducted by ADB representative, RDA-ESDD team (Social and Environment officer, Hydrologist and Monitoring officer) and PIC team Environmental Specialist, Environment Officer, Environmental Assistant and Social, Gender and Resettlement Specialist.



Picture 15. Site inspection at construction completed road by environmental team- M2 package.



Picture 16. Tiding up the road section after rock blasting-M1 package.



Picture 17. Drainage clean up- M1 package.



Picture 18. Health condition monitoring of a tree done in school program-M2 package.



Picture 19. Culvert cleaning –G3 package.

Table 07. Monthly monitoring schedule for iRoad SP by PIC team.

Contract Package	# of roads	Length (Km)	# of days of monitoring by ES	# of days of monitoring by EO & EA
G1	15	64.6	2	6
G2	22	66	2	6
G3	29	73.6	3	6
M1	22	97.5	4	6
M2	19	69.2	3	6
M3	25	53.4	3	6
H1	19	67.1	3	6
H2	18	58	3	6
H3	14	42.9	2	6



5. Issues Observed and Status of Compliance

Table 08: Major issues observed and mitigated (1 Jan to 31 Dec 2018)

Construction activity	Major impact/s	Package/s	Mitigation measure/s proposed in the SSEMAP	Mitigation measure/s adopted	Monitoring indicator	Additional action recommended by PIC	Effectiveness	Example/s
A). Roadside vegetation clearing	1.0 Destruction and displacement of native flora and fauna.	G1, G2, M1, M2, M3, H1 & H2	1.1 Minimize of trees removing.	1.1.1 Minimized of clearing vegetation.	1.1.2 No. of trees listed to be removed vs. No. of trees actually removed	1.1.3 Demarcation of very important areas regarding fauna and flora.	1.1.4 Total of 170 trees in G2, M1, H1 and H3 packages have been left without removal (through design modifications).	Picture 20.
			1.1.1a Replanting trees 1:3 ratio.	Replanting of trees at 1:3 ratio.	1.1.2a Number of plants replanted.	1.1.3a Daily monitoring of environmental sensitive sites by EO and EA. 1.1.3b Identification of plant nurseries for purchase plants for replanting.	1.1.4b 10450 nos. of plants have been replanted in all packages, against 4188 Nos. of trees removed.	
			1.2. Road construction activities shall be conduct within the	1.2.1 Construction activities mainly	1.2.2 No. of locations where design modifications done to avoid	1.2.3 None	1.2.4 A total of 70 trees in G2, M1, H1 and H3 packages	

			available ROW.	restricted to existing ROW.	removal of trees.		have been left without removal (through design modifications)	
	2.0 Soil erosion and sedimentation of fresh water streams.	G1, G2, M1, M2, M3, H1 & H2	2.1. Minimized vegetation clearing. 2.1.1a Proposed environmental friendly designs.	2.1.1 Environmental friendly designs changes adopted to avoid/ minimize soil erosion and sedimentation	2.1.2 No. of incidents where vegetation cleared beyond the ROW. 2.1.2a No. of incidents reported (complains) on sedimentation of streams	2.1.3 Optimum use of existing ROW for road construction. 2.1.3a Use of local & expert knowledge for road designs.	2.1.4 Only around 03 Nos. of public complaints received on sedimentation of water bodies during the reporting period. 2.1.4a Only around 13 Nos. of significant soil erosion incidents were reported during the reporting period.	
			2.2 Embankment protected	2.2.1 Minimized the exposure of	2.2.2 Number of embankment	2.2.3 Design changes in accordance	2.2.4 Exposed earth areas were	

			using wide-spread weed species/ turfing to prevent erosion. 2.2a Cut slopes finished according to the standard procedures proposed by design engineer.	top soil through measures suggested in the SSEMAP	protected areas. 2.2.2a Number of eroded areas.	with design engineers and the community representative's suggestions. 2.2.3a Exposed earth surfaces shall be temporarily covered until permanent measures are in place.	protected and well maintained.	
	3.0 Dust generation.	G1, G2, M1, M2, M3, H1 & H2	3.1. Spraying of water as required. .	3.1.1 Spraying water as required.	3.1.2 Number of water bowsters deployed. 3.1.2a Number of times water spraying.	3.1.3 Dust generation sources shall enclosed, Spraying of water as required.	3.1.4 No major complaint on dust during the reporting period.	
			3.2 Dust generation	3.2.1 Stock piles located away from	3.2.2 Compulsory water bowser	3.2.2 Stock piles shall maintain	3.2.3 Minimum number of	

			sources are well enclosed.	settlement areas.	deployed and spraying of water at site two times in dry season and additional done if needed.	according to the proposed SSEMAP procedure.	complaints (02 nos.) received from the communities.	
B) Extraction of embankment materials.	1.0 Habitat damage.	G1, G2, G3, M1, M2, M3, H1, H2 and H3	1.1 Pre identified and approved excavation sites selection. 1.1.1a Replanting trees 1:3 ratio.	1.1.1 Extraction of materials only done at pre-approved sites. 1.1.1a Vegetation damaged minimized and large trees conserved in-situ.	1.1.2 No. of material extraction sites operated without approval 1.1.2a Number of large trees conserved within material extraction sites.	1.1.3 Demarcation of very important areas regarding fauna and flora. 1.1.3a Daily monitoring of environmental sensitive sites by EO and EA.	1.1.4 No. of sites operated with approvals was around 90 and no public complaints received. 1.1.4b No complaints or issues observed in significant damage to habitat due to material extraction.	Picture 21

	2.0 Dust generation at excavation sites/ transportation.	G1, G2, G3, M1, M2, M3, H1, H2 and H3	2.1. Spraying of water as required at sites.	2.1.1 Spraying water as required.	2.1.2 Dust generation was minimum at sites.	2.1.3 When transport of dust generation materials shall covered.	2.1.4 No public complain received.	
			2.2 Fencing off the material extraction sites/ maintaining the vegetation belt around the material sites	2.2.1 Stock piles located away from settlement areas.	2.2.2 No. of stock piles covered.	2.2.2 Stock piles shall maintain according to the proposed EMAP procedure.	2.2.3 No public complain received.	
	3.0 Soil erosion, earth slips, siltation and sedimentation of water bodies.	G1, G2, G3, M1, M2, M3, H1, H2 and H3	3.1. Minimized vegetation clearing. 3.1.1a Proposed environmental	3.1.1 Excavations done systematically to minimize soil erosion and sedimentation.	3.1.2 No. of earth slips occurrences. 3.1.2a number of opened earth	3.1.3 Slopes and cuts shall maintain and protect as much as possible.	3.1.4 Recorded less than 7 number of earth slips. 3.1.4a All materials extracted	

			friendly extraction methods (slope cutting done step wise).	3.1.1a Opened earth cuts/slopes temporarily covered in rainy season as much as possible. 3.1.1b Road surface rain water ran off speed controlled by barriers.	surface covered.	3.1.3a Use of local & expert knowledge for prevention of soil erosion.	locations were remediated.	
C). Sub base preparation, shoulders construction, ABC laying and compaction.	1.0 Roadside air, water and noise pollution at sensitive areas.	G1, G2, G3, M1, M2, M3, H1, H2 and H3	1.1 Completion of all construction works within/ close to settlement areas within the shortest possible time period.	1.1.1 No. of complaints received on dust, noise and vibration	1.1.2 Monitoring of air, water, sound quality, fauna and flora parameters were measured at pre and during the construction activities.	1.2.3 One additional location was sampled for air, water, noise, fauna and flora. 1.2.3.a	1.2.4 Monitoring of air, water, sound quality, fauna and flora parameters were measured at pre and during the construction activities and all were at	Picture 22

							accepted levels.	
			1.2 Public complaint system establishing such as GRC and complaint boxed establish at site and public places.	1.2.1 GRC established at GND/DSD levels in all packages for each road.	1.2.2. No. of GRC held to resolve public complaints on dust, noise and vibration.	1.2.3 Public matters shall address at site level as much as possible.	1.2.4 Around 9 Nos. of public complaints related to environmental issues settled at site level.	
D) Plants operations	1.0 Dust generation, air, noise, surface and ground water pollution	M1, M2, M3, G1, G2, G3, H1, H2, H3	1. 1 EPL obtain and maintenance.	1.1.1 All plants operated with proper and valid licenses and approvals. Regular inspections were carried out by ES in all processing plants in each packages.	1.1.2 Number of public complaints received by surrounding communities.	1.1.3 Materials stock piles shall be covered. 1.1.3a Waste water shall treated before released to the environment.	1.1.4 Only 1 public complaint received in G3 package.	Picture 23



Picture 20. Vegetation clearing in PBM - G3 package.



Picture 21. Systematically extraction of embankment material- G3 package



Picture 22. Sub-base preparation at Bevaraliya road- M1 package.



Picture 23. Stockpile covered to prevent dust generation- H2 package

6. Public Consultations and Information Dissemination



In addition to the community awareness meetings held at the commencement of the project, a public notice developed in local language is being displayed at community-attracted places including Grama Niladhari (GN) offices and Divisional Secretariats (DS) in the project area. The main purpose of the notice is to create awareness among communities on the project, understand to what extent the community can involve in project activities and how to make complaints, suggestions, grievances and requests to the project. The public notice gives the key information about the project and contact numbers of relevant officers of the project who are to be contacted regarding social and environment issues. Also locally and internationally have disseminated information, work experiences and expertise gathered on iRoad(SP), specially on the CSD system adapted for rural road improvements (Pics. 24-25).



Picture 24. Experience sharing in lateral learning workshop, with Nepal team.



Picture 25. Field visit to southern railway project discussion about common problems in construction.



7. Programs and activities to enhance Environment

7. 1 Greening programs.

7.1. 1 The procedure followed up of tree identification and removal process.

- a) Contractor's Design Engineer, Environmental Officer and consultant's Design Engineer and Environmental Assistant made onsite joint inspection and decided required number of trees removal according to the road design plan.
- b) If the tree removal essential Contractor, informed/requested to the Resident Engineer regarding the tree removal.
- c) Carefully considering the requirements, especially for space for construction activity and safety of the road users, Resident Engineer informed to the Environmental Specialist for approval.
- d) With the consent of the Environmental Specialist Resident Engineer, informed Project Engineer (PE) to carry out the tree removal procedure, here (PE) engaged with permission procedures.
- e) Resident Engineer officially informed to the contractor for removal of trees and if the tree was privately own it was handed over to the owner and if the tree was owned by the government, it was handed over to the relevant department (Timber Cooperation, District Seretrieriat ect.).
- f) If a tree removal was resisted by the villagers or other parties, it was directed to GRM procedure.
- g) Tree removal done by the private owner or by the contractor.

7.1.2 Tree planting procedure

Tree planting program done according to the 1: 3 ratio (3 trees planted for every tree removed) at pre- decided locations. When it started, it adheres to the EMP, tree selection for tree planting activity the contractor shall select native or endemic saplings. However, Environment Specialist and others related parties collectively agreed to re-plant at a height of 0.5 -1 m high plants. This approach was taken to help to protect the plant and its maintenance.

Considerable numbers of tree-planting programs were conducted across the Southern Province, mainly focused on public places such as schools, libraries, temples and community grounds. The school children and the public under the supervision of contractor's representative (Environmental Officer) maintained planted trees. All plants were tagged for monitoring purpose, this was monitored by the PIC, Environmental Specialist (Table 09) (Pics. 26-28).

7.2 Collaborative activities.

Southern Expressway Management requested from iRoad (SP) to support their "Green Expressway Network" planting program by providing 8,000 nos. of plants and 2 nos. of Earth Auger Machines. As a result of the request iRoad(SP) fulfilled their requirement and a planting program was conducted on 14 Oct 2017 from Godagama to Galle Entrance. Planted tree were monitoring at regular interval by the iRoad environment team.

iRoad(SP) also established a good private and public participation by establishing collaborative tree planting program with Bevaraliya Tea Estate, Deniyaya.

Table 09. Status of tree removal and re-planting in each contractor package up to 31 Dec 2018.

Package	# of Tree removed	# Tree planted
G1	165	525
G2	64	321
G3	214	840
M1	1488	2145
M2	888	1591
M3	871	2769
H1	88	636
H2	301	1309
H3	148	708
Total	4227	10844



Picture 26. Tree planting program conducted with Sri Lanka Police- M3 package



Picture 27. Awareness before the tree planting program with Sri Lanka Police- M3 package



Picture 28. Maintenance of planted trees- G3 package



Picture 29. Protection provided of planted trees- G3 package



Picture 30. Introduced a new road sign at elephant crossing locations – H1 package

8. Conclusion

Conclusion

The iRoad(SP), have 9 contract packages, which are distributed from coastal to highlands of the Southern Province, Sri Lanka. The iRoad(SP) was the pilot project, where the CSD concept, was introduced and practiced in the 9 contract packages. The CSD concept was new and it was successfully introduced to the project by conducting several CSD related workshops and onsite practical sessions, at the very commencement of the project.

Environmental safeguard is a major component of the iRoad(SP) project, its compliance with Sri Lankan law and ADB safeguard policies. Regular monitoring of environmental conditions and compliances of the Southern Province road construction works enabled to protect and conserve unique ecosystems. Various education and awareness programs conducted to the public kept the safeguard of the environment.

Following are recommended to the iRoad(SP) to keep up its quality and assurance of the environmental safeguard.

- Regular monitoring of the road construction sites that the contractors are in compliance with approved EMAP.
- Education and awareness programs to public on environment safeguard.
- Record keeping and reporting of environmental related activities.
- Dissemination of the knowledge all stakeholders and related parties.
- Onsite training programs regarding environment safeguard to the staff were very successful and need to continue in a regular manner.
- Additional environmental officers/ assistants based in district level were useful to closely monitor the contractors' activities and recommended.
- Education awareness program for school children were very successful and recommend continuing such kind of programs.
- Regular progress monitoring was very essential to keep all project staff on track regarding environmental safeguards.
- Changed designs an appropriate to the site conditions were able to conservation of roadside vegetations as well as protection of some important microhabitats.
- Record keeping such as SSEMAPs' and EMCs' were helpful to monitor environmental conservation progress in each road. This also supported some of the critical decisions where the problems occurred.
- Tree planting programs should be closely monitored if planting is done in a school, grounds, public places and roadside location. Tree survivorship will totally depend on the regular maintenance. Where it possible tree planting programs should conducted on mass quantities with available land belongs to Forest Department, Department of Wildlife and other crown lands.