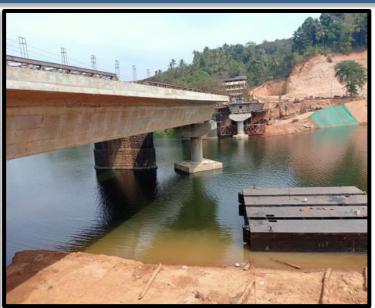
## GOVERNMENT OF KERALA PUBLIC WORKS DEPARTMENT







# MONTHLY PROGRESS REPORT FEBRUARY -2020

## KERALA STATE TRANSPORT PROJECT –II UNDER WORLD BANK ASSISTANCE-LOAN NO 8254



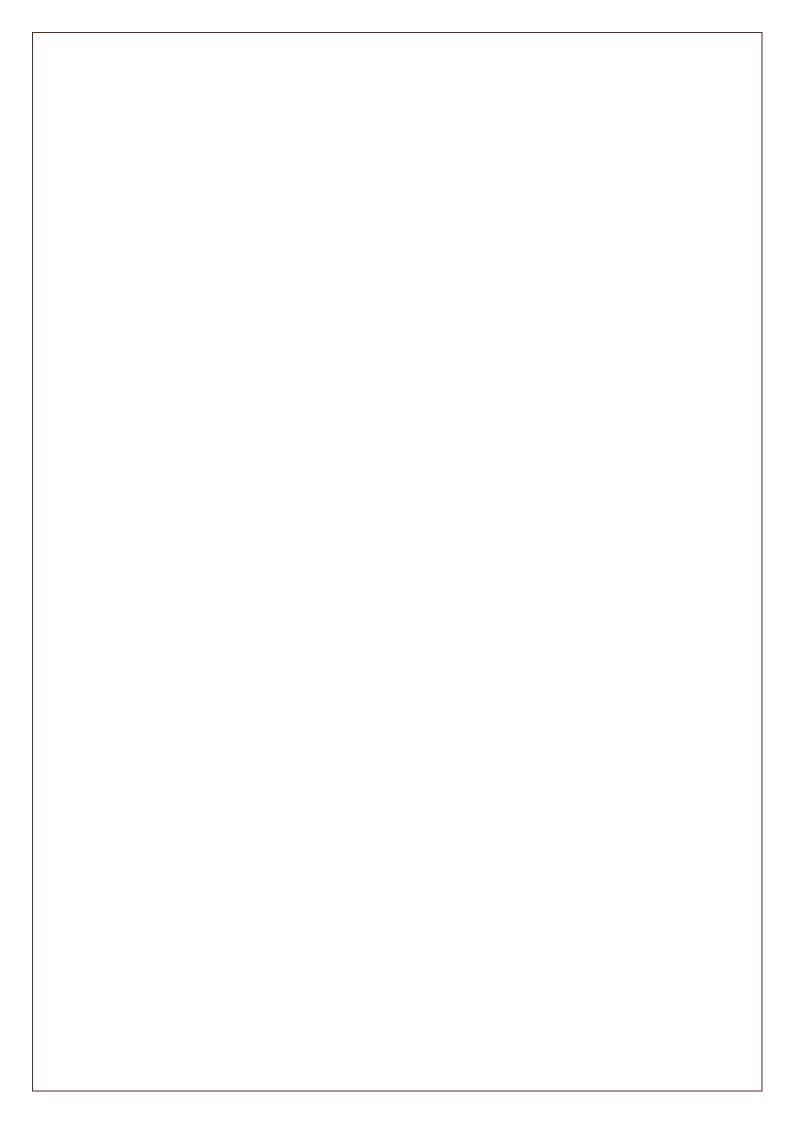
## PROJECT MANAGEMENT TEAM

KERALA STATE TRANSPORT PROJECT T.C.11/339, SREE BALA BUILDING, KESTON ROAD, KOWDIAR P.O THIRUVANANTHAPURAM-6295003

PROJECT MANAGEMENT CONSULTANTS



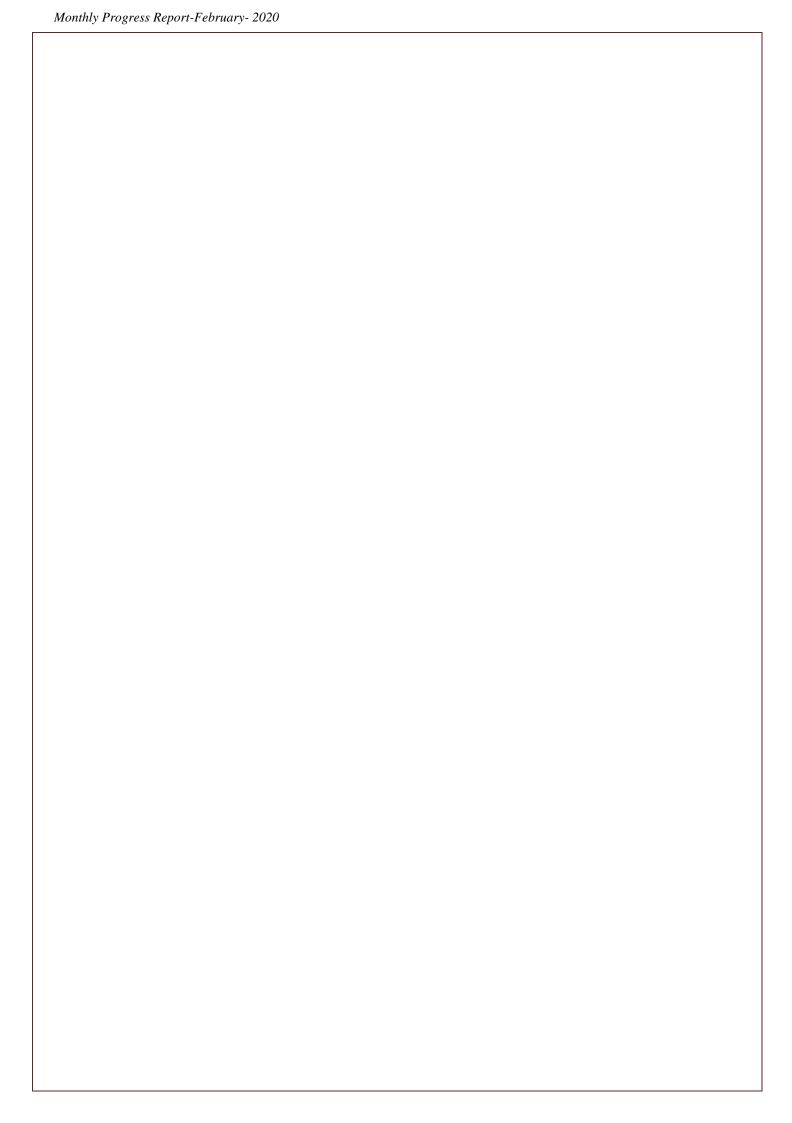
EPTISA SERVICIOS DE INGENIERIA.S.L. II floor, T.C.11/339, SREE BALA BUILDING, KESTON ROAD, KOWDIAR P.O THIRUVANANTHAPURAM-6295003



## **Table of Contents**

1	EXECUTIVE SUMMARY	1
1.	1 Introduction	1
1.2		
1.3	3 PROJECT COMPONENTS	1
2	PLANNING & OVERALL IMPLEMENTATION:	2
2.:	1 Project Staffing:	2
2.3	2 Project co-ordination:	2
2.3	3 COMPONENT A 1 IMPLEMENTATION	2
2.4	4 Sub Component A2 implementation	2
2.!	5 COMPONENT B & C – ROAD SAFETY MANAGEMENT IMPLEMENTATION	3
2.0	6 COMPONENT – INSTITUTIONAL STRENGTHENING IMPLEMENTATION.	3
2.	7 SIX POINT ACTION PLAN AND ACTION TAKEN — IMPLEMENTATION	4
2.8		
2.9	9 COMPLIANCE OF LEGAL COVENANTS	6
3	PROJECT KEY MAP	9
4 F	UNDING & DISBURSEMENT	
4.		
4.7		
4.3	3 RESTRUCTURING	12
5 C	URRENT PROJECT STATUS	
5.:		
5.2		
5.3	• • • • • • • • • • • • • • • • • • • •	
5.4	4 Kasargod to Kanhangod Road –SH-57	18
	PACKAGE 2 -PILATHARA -PAPPINISSERY-SH-67	
5.6	PACKAGE 3A – THALASSERY TO KALAROAD -SH-30	22
5.	7 PACKAGE 3B – KALAROAD -VALAVUPARA	24
5.8		
5.9		28
5.3	10 PACKAGE 4B – THIRUVALLA TOWN	32
5.:	11 PACKAGE 5 – ETTAMANOOR- MUVATTUPUZHA	34
5.3	12 PACKAGE 6 -PONKUNNAM – THODUPUZHA – SH 8	35
5.3		
5.3		
5.:	15 COMPONENT B: ROAD SAFETY COMPONENT	50
5.1	6 MC ROAD - KAZHAKKOOTTAM – ADOOR 78.65 KM	55
5.1		
5.3		
5.:	19 COMPONENT D: REBUIL KERALA INITIATIVE	64
6	PROJECT DEVELOPMENT INDICATORS – RESULTS FRAMEWORK	
7	SOCIAL SAFEGUARD	83
7.3	- ' '	
7.3		
7.3	3 Management of Construction induced Issues	84
8 G	RIEVANCE MANAGEMENT REPORT	
8.:		
8.2	Payment to the consultants and Contractors as on end of February 2020:	87
9 C	OMPLIANCE GOVERNANCE IMPROVEMENT ACTION PLAN	88
9.:	- '	
9.2	2 KEY CONTROLS AS PART OF THE ACTION PLAN:	88

10 ACCI	10 ACCIDENT REPORT91						
10.1 10.2	ACCIDENT REPORT PKG-3A ACCIDENT REPORT PKG-3B.	91 92					
11 SITE	WORK PROGRESS PHOTOGRAPHS	93					
11.1 11.2 11.3 11.4	PACKAGE -1 —PHOTOGRAPHS  PACKAGE -2 —PHOTOGRAPHS  PACKAGE -3A —PHOTOGRAPHS  PACKAGE -3B —PHOTOGRAPHS	94 95					
11.5	PACKAGE -4A –PHOTOGRAPHS	97					
11.6 11.7 11.8 11.9	PACKAGE -4B —PHOTOGRAPHS  PACKAGES-8B-PHOTOGRAPHS  PACKAGE -8C —PHOTOGRAPHS  SCDP ROAD —COMPONENT B —PHOTOGRAPHS	99 100					



## 1 Executive Summary

#### 1.1 Introduction

Government of Kerala has decided to take up Phase-II upgradation component of KSTP as a standalone project vide the" **KSTP-II**" with assistance from World Bank. The project envisages the upgradation of 363 km of SH and MDR, Road Safety Management and Institutional Strengthening of PWD. The total Project cost is 445 million USD out of which 216 million USD is loan assistance from World Bank. The project loan agreement was signed on June 19, 2013 at the DEA Office; New Delhi. The loan effectiveness date is September 6, 2013. The project implementation period was five years, up to 31 December 2018, but now stands extended to April 2021 and the expected loan closing date 30.04.2021.

## 1.2 Project Development Objectives

The Project Development objective under initial stage was to improve road condition, traffic flow and road safety with a focus on vulnerable road user on Kerala State Core road Networks comprising of about 450.00 Km of major roads and state highways. The main beneficiaries of the Project will be the users living along the Project corridors mainly the pedestrians, motorist, agricultural and industrial producers, consumers and local community. The main benefits under this implementation would be in the form of reduced transport bottlenecks, lower passenger freight transport costs, reduced travel time and improved road safety in terms of reducing severe crashes and injury.

## 1.3 **Project Components**

It was decided jointly by World Bank and KSTP to divide the entire project into the following main componenents under KSTP-II

## 1.3.1 Road Upgrading Works:

These works named as Component A1 and A 2 will include upgrading of about 363 kms of strategically important State Highways to complete network connectivity in the state with the objective of reducing travel time between key socio-economic centers.

## 1.3.2 Road Safety Management:

This component named Component B & C will support the strengthening of the road safety management systems in Kerala with the objective of arresting the increase of crash fatalities in the state. This component will finance various initiatives on capacity building including a **safe corridor demonstration project**, implementation of local level programs utilizing the challenge fund and advisory support for road safety activities.

### 1.3.3 Institutional Strengthening

The objective of this component is to improve the sustainability of Kerala's state road network with respect to its functional adequacy, financial viability and capacity of key state road sector institutions to deliver road infrastructure and services that are responsive to road user needs. The major initiatives include Modernization of Road Sector and improving Public Communication and User Engagement in Road Development.

## 2 Planning & Overall Implementation:

## 2.1 **Project Staffing:**

KSTP is managed by a Project Director, in the Rank of a senior level Chief Engineer assisted by one Chief Engineer, a Superintending Engineer and other engineers and officers. The Technical Wing headed by the Chief Engineer is responsible for activities related to engineering, environment, social and contract management. Further, the legal contract management cell is headed by a legal professional. KSTP has qualified and experienced Social and Environmental Experts and a Project Consultant. The Finance Wing headed by a Finance Controller (deputed from the Secretariat) has a qualified Finance Manager with support staff. On the field, the KSTP has Two Superintending Engineers, Five Divisions located at Kottarakkara, Muvattupuzha, Kuttippuram, Kannur, Ponkunnam each headed by an Executive Engineer to monitor project progress.

## 2.2 Project co-ordination:

Govt. of Kerala has established two committees to monitor, coordinate, and expedite project activities. The *Project Steering Committee* chaired by the Chief Secretary, has its main functions to review and approval of recommendations regarding acceptance of tenders and taking the final decisions on all matters concerning procurement and monitoring of project activities. The members of the committee are Principal Secretary (Finance), Secretaries to Government, PWD, Law Department, Revenue, Chief Engineer, R&B, Project Director, KSTP, Chief Engineer (Projects) KSTP. The second is an *Evaluation Committee* headed by the Principal Secretary PWD and comprising the Project Director, KSTP and Chief Engineer (Projects), to make recommendations on any issues on procurement as may require approval of the Steering Committee.

## 2.3 Component A 1 implementation

Under this component, 2 supervision consultancies CSC1 and CSC 2, Independent engineering services, and Transaction Advisory Service for EPC are included. Contract Agreement for Consultancy for CSC 1 for 190 Km of upgradation road was executed with M/s Egis International in JV with Egis India Consulting Engineers Pvt. Ltd on 28.02.2013 and mobilized and in place. Egis has established rented office for Team Leader at Thiruvananthapuram near to Client's Office and started functioning from April 2013. Also, RE office is functioning for Package 3A & 3B at Uliyil near Mattannur in Kannur District for package – III, Pallam in Kottayam for Package IV, for Package V at Koothattukulam.

M/s MSV International USA was the selected consultant for Construction Supervision for the Ponkunnam – Thodupuzha stretch (50 km) CSC-2. The length of road covered is 50 km and the assignment commenced on 15 May 2014 and is completed.

## 2.4 Sub Component A2 implementation

Ground Truthing and updation of DPR for this sub component (Punalur – Ponkunnam – 82 Km under EPC was carried out by). M/s L&T Infrastructure. The bids were invited split into three packages and tender notification issued. Clearance has been received from World Bank for the bid documents. Recommendation for extending the loan period up to April 2021 has been sent to DEA.

## 2.5 Component B & C - Road Safety Management implementation

The baseline survey for the proposed safe demonstration corridor has been completed by 'NATPAC' and report shared with Bank. The design activities on the Safe Corridor Demonstration Project (SCDP) by NATPAC are done, Civil works and Road Safety works are in progress. The strengthening of KRSA is completed. The challenge fund proposal received from Kozhikode DRSC through KRSA has been tendered and work awarded to M/s NATH Constructions. This work is completed including the defects libility period.

## 2.6 Component – Institutional Strengthening implementation.

## 2.6.1 Consultancy Services

The following Consultancy services are completed.

- 1. Consultancy for Road User Perception Survey has been completed for 363 Km of Project Roads through M/s Sherwood Consultants and report shared with Bank.
- Consultancy for Prioritization and DPR Preparation for 1000 Km of Improvement of State roads was entrusted with M/s Egis India Consulting Engineers Pvt. Ltd and final report submitted. DPR for first 439 km roads has been completed. The preliminary project report for 1106 km was submitted to Government for posing for External Financial Assistance.
- 3. Consultancy for Strategic Option Study (SOS) for 8570 Km newly declared MDR was completed by M/s CDM Smith Associates Pvt. Ltd. Study report has been handed over to PWD, R&B and further action to improve these roads will be taken by them using their own funds.
- 4. Consultancy service for Developing Multi Model Integrated Transport Hub at 3 cities, Trivandrum, Kozhikode and Kochi was completed and report forwarded to Government. This report was also shared with NATPAC for consideration while preparing Comprehensive City Development Projects.
- 5. Preparation of design under Green Building concept for PWD, Head Quarters Building. This was completed and forwarded to Chief Engineer, Buildings for obtaining AS
- 6. The Strategic Road Network Program was replaced with the following proposals as per the current priorities of the new Government
  - Development of KHRI in to Centre of Excellence on Road Safety and Asset Management
  - Development of Public Information Management System integrating the existing Public Information Cell, the WINGS portal of PWD, the GIS etc undertaken by PWD
  - Consultancy Services for Project Management of PMT
  - Consultancy for Post Construction road audit of works
  - Integration of labour laws and compliance in World Bank funded Project
  - Appointing Probity Advisor in PMT
- 7. The Public Information Management System will be developed by the Chief Engineer Road and Bridges, Public Works Department.
- 8. The Project Management Software has been installed and training given to CSC and KSTP Engineers. The PMS is operationalized.
- 9. A Community laiaison officer was appointed in PMT to assist in the implementation of SCDP.
- 10. The periodical Road User Satisfaction Survey is arranged and in progress

## 2.7 Six Point Action Plan and Action Taken – Implementation

A six-point action plan and governance improvement action plan for strengthening fiduciary arrangements, quality assurance and contract management was drawn and agreed during the Interim Mission held in August 2017. It was then agreed that the plan be fully complied by January 2018. Although late, the action plan has now been fully complied and continues to be in compliance, as mentioned below

Sl. No.	Details of the Action Plan agreed with GoK	Assessment during mission
1	Develop a mutually agreed Governance Improvement Action Plan including Strengthening Fiduciary Arrangements, Quality Assurance and Contract Management by end September 2017 and fully comply with the plan by January 2018	Complied. PMC fully mobilized.
2	Ensure continuity of Project Director and key project staff till end of the project	Complied. PMU staffing, however, needs enhancement in view of expanded mandate.
3	Engage experienced contract management specialist and quality assurance specialist in the PMT	Complied. Engaged through PMC consultants. M/s Eptisa Servicious Ingeniera S.L appointed on 5 <sup>th</sup> March 2019 and fuctional.
4	Take final decision on way forward for Component A2	Complied. Procurement initiated. Award of works for Package 8 A, B and C in final stage for 82.17 Km road upgradation work as EPC.
5	Ensure full commitment of Component B and at least 80% for Component C	Complied for Component C. For Component B, however, 100% compliance can be achieved after remaining 10% commitment (Challenge Fund). Bids to be received by 27 <sup>th</sup> Aug 2019 and work expected to commence from October 2019.
6	Sustain the progress in Component A1 and reach overall progress of 75% contributing to at least 40% project disbursements in the next 4 months	Complied. Current physical progress is 92% and disbursement 53%.

## 2.8 Quality Assurance:

The KSTP had engaged a Construction Supervision Consultant for quality certification at the primary level. Their functions on quality assurance will be monitored by deepening the involvement of the KSTP Divisional Engineers. At the second level of quality monitoring KSTP had engaged an Independent Quality Monitoring Consultant. The final quality monitoring including review of all quality monitoring activities, KSTP has formed a Quality Review Committee chaired by the Chief Engineer KSTP, who is arranging reviews. Further, acations to appoint a Consultant for closure audit of the roads before taking over is in progress.

#### Bill Processing and Variation Management:

The bills for works certified by the Supervision Consultants are processed through the KSTP field Divisions as envisioned in the Finance Manual. Also, variations approval procedure has been outlined and the approvals are put through this protocol. Further, in order to improve the cash flow conditions of the contractors to speed up the pace of implementation an Accelerated Payment System was introduced by which 75% of the amount due will be paid as soon as the bill is received at PMT prior to detailed scrutiny.

#### Project Management Consultant (PMC) and Probity Advisor:

To augment the capabilities of the existing staff to effectively manage the Project activities, including implementing the Governance Improvement Action Plan, the KSTP had initiated the selection process for the Project Management Consultant. M/s Eptisa finalized and appointed and was on board from 5<sup>th</sup> March 2019.

#### 1. Ensure continuity of Project Director and key Project staff till end of the Project.

The State has posted a full-time officer from the Indian Administrative Service as Project Director and the positions of Social, Environmental and other positions are also filled.

# 2. Engage experinced professional in Quality Management and Contract Management Specialists in the PMT and organize monthly management meetings on Quality Assurance and Contract Management

The Quality Management and Contract Management Specialists are included in the PMC team was mobilzed by 1st week of March 2019. The quality review committee with Chief Engineer KSTP as Chair Person has been reviewing Quality and Organization meetings regularly in the PMT Head Quarters. An independent Technial Auditor was also appointed to carryout Quality Audit. A Consultant for Post Construction Technical has been selected.

# 3. Sustain Progress in Component A1 and reach overall progress of 75% to at least 40% Project Disbursement.

As on end of July 2019 the physical progress is 94.0 % on Sub Component A1 (Road up gradation in nine Packages). The financial progress is 73.0 %. The overall disbursement as on April 2019 is 115.87 Million USD which is 54.00 % of the overall loan amount of US\$ 215 million committed. A total of 316.00 km has been paved to Bituminous Concrete road out of 360.00 kms.

#### 4. Take final decision on Component A2, including preparation of revised engineering design.

Due to time constraints to complete the formalities like financial closure and then implement the Project (Punalur – Ponkunnam road) before the loan closure period, the Government of Kerala decided to change the mode of procurement to EPC in Consultation with the Bank. The State has also recommended extension of loan period. The bidding documents are prepared by M/s L&T and tenders have been floated which ends April (mid) 2019. Bids have been received for all these packages, evaluation done and soon to be awarded. Details of these packages are explained more in detail in following chapter of the document. This Package of 82 km is split in to three smaller Packages to ensure early completion

#### Commitment of Component B and at least 80% for Component C:

## Component B

Out of US\$ 22 million (Rs. 143 crore) allocated so far, KSTP has arranged works on SCDP, (Road Safety Interventions), the Capacity Building and the proposals of Challenge Fund program are under scrutiny. 100 % has been committed and DPR consultants for Challenge Fund work has been finalised.

#### Component - C: Institutional Strengthening

Under the Road Sector Modernization, KSTP had already arranged a few Consultancy assignments such as Design of Green Building for PWD Head Quarter and others. Further to this, KSTP has initiated procurement for the assignments in consultation with the Bank. The procurement to be completed, 1st week of March 2019.

In the Sub Component Active User Engagement in Project Design, implementation, Screening and Asset Management, the KSTP has arranged the Periodic Road User Satisfaction Surveys, another assignment for

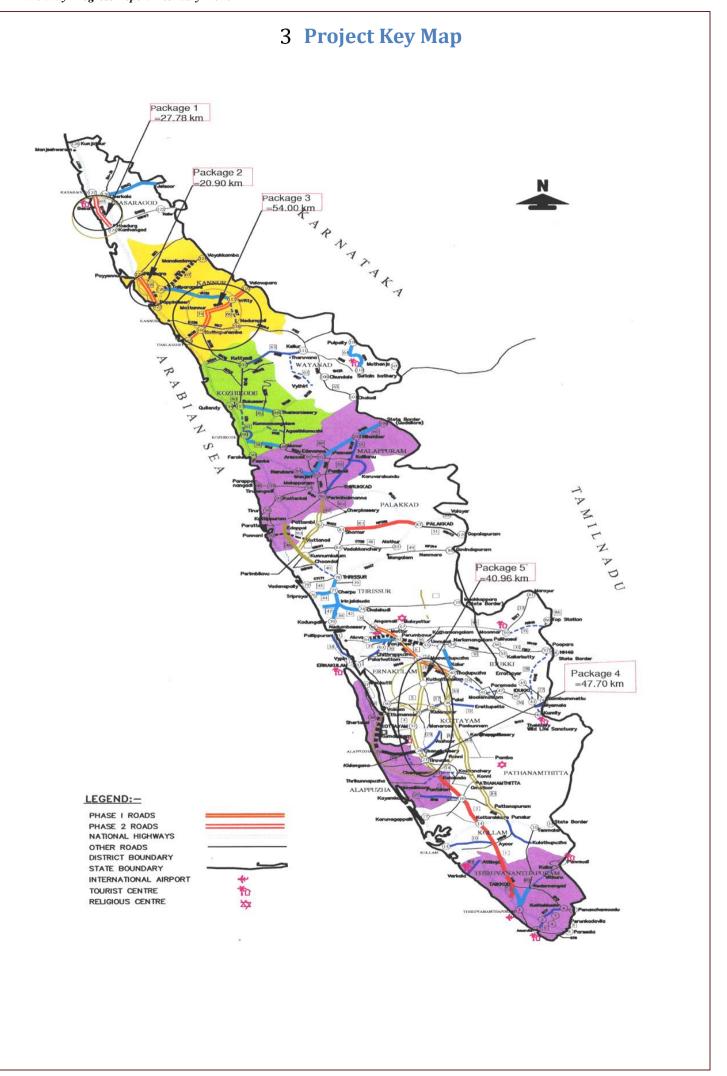
Community Participatory Road Safety and User Management Program was dropped as individual experts have been engaged for Comminity Laiaison works.

## 2.9 Compliance of legal covenants

SI. No.	LEGAL COVENANTS		COMPLIANCE STATUS
A. Ins	stitutional Arrangements		
1.	The Project Implementing Entity shall maintain, throughout the period of implementation of the Project:		
	<ul> <li>a. A Project Steering Committee ("the PSC"): (i)         headed by Chief Secretary of Kerala, and         comprised of representatives of Project         Stakeholders and line department of the         Government of Kerala, in numbers, manner and         substance acceptable to the Bank</li> </ul>		a. Steering Committee in place
	<ul> <li>A Project Management Team (the "KSTP") within the PWD: (i) headed by a Project Director in the rank of a senior level Chief Engineer and assisted by competent staff</li> </ul>		b. Project Management Team in place
	c. An Evaluation Committee ("the Evaluation Committee") within the PWD		c. The Evaluation Committee in place
	d. An Environmental and Social Management Cell (the "ESMC") within the PWD with competent, experienced and qualified staffed in sufficient numbers and under terms of reference satisfactory to the Bank, vested with powers, financial resources, functions and competencies, acceptable to the Bank. Monitor and evaluate contractors' an consultants' compliance therewith; and carryout any necessary updates thereto		d. Environmental and Social Management Cell in place
2.	The Project Implementation Entity shall throughout the period of implementation of the Project the services of a supervision consultant (the "Construction Supervision Consultant"), with qualifications and experience and under terms of reference acceptable to the Bank.	-	Construction Supervision Consultant in place
3.	The Project Implementation Entity shall engages:  a. by no later than twelve (12) months after the effective date, and thereafter maintain throughout the period of implementation of the Project, the service of an independent engineer (the "Independent Engineer")		a. It is proposed to convert PPP mode to EPC / Item rate Authority     Enigneer will be appointed
	b. By no later than six (6) months after the effective date, and thereafter maintain throughout the period of implementation of the Project, the services of a firm of Chartered Accountant with qualification and experience, and under terms of reference, acceptable to the Bank		b. Internal Audit firm appointed for audit of accounts
B. <b>Pro</b> j	ject Document		
	The Project Implementation Entity shall:  a. Implement the Project in accordance with the Project Implementation Plan, the FM Manuel, the GAAP and the Safeguard documents		This is complied
C. Ant	-corruption		
	The Project Implementation Entity shall ensure that the Project is carried out in accordance with the provisions of the anti-corruption guidelines and the GAAP		Complied
	llenge Fund		
1.	For purposes of carrying out under Component B2 of the Project, the Project Implementing Entity shall, through the coordinated and cooperative effort of the PWD and the RSA, mobilize local stakeholders, including District Road		The Challenge Fund proposal for Kozhikode has been awarded.

SI. No.	LEGAL COVENANTS	COMPLIANCE STATUS
	Safety Councils, Grama Panchyats and / or non- governmental organizations	
E. Saf	reguards	
1.	The Project Implementing Entity shall:  • Carryout the Project in accordance/ compliance with the Environmental Impact Assessment ("EIAs"), the Environmental Management Plans ("EMPs"), the Environmental Management Framework ("EMF"), the Resettlement Action Plan ("RAP"), and the instruments	This is complied
3.	The Project Implementing Entity shall ensure that, prior to commencing any civil works on a particular road, or section thereof, under the Project: (i) All necessary governmental permits and clearances for such civil work in the relevant road, or section, shall have been obtained from the competent governmental authority/ies and submitted to the Bank	All permits from statutory authorities obtained
4.	The Project Implementing Entity shall ensure that each contract for civil works under the Project includes the obligation of the relevant contractor to comply with the relevant Safeguard Document applicable to such civil work commissioned/ awarded pursuant to said contract.	EMP followed during construction
5.	The Project Implementing Entity shall:  a. Furnish to the Bank, throughout the period of Project implementation:  i. Quarterly reports prepared by KSTP, with the assistance of the ESMC, on the general compliance with the Safeguard Documents, the Social and Environmental Impact of Project activities, and the results of the mitigation or benefit-enhancing measures applied thereto, during the period preceding the date of each such report  ii. Quarterly reports prepared by: (A) the Construction Supervision Consultant in respect of Sub-Component A1 of the Project; and (B) the Independent Engineers, in respect of Component A2 of the Project, said reports to assess the respective contractor's general compliance with the Safeguard Documents, the Social and Environmental Impact of Project activities, and the results of the mitigation or benefit-enhancing measures applied thereto, with particular emphasis on the implementation and results of resettlement activities, during the period preceding the date of each such report.	Complied with
F. Sug	ggestion and Complaint Mechanism	
G. Pro	The Project Implementing Entity shall maintain and operate throughout the period of implementation of Project activities, a district-level grievance redressal mechanism for resettlement and rehabilitation and a State level grievance redressal mechanism for all other aspects of the Project, which systems shall be subject to guidelines and procedure, acceptable to the Bank.  Dject Surveys  The Project Implementing Entity shall carryout at least	District level GRC of KSTP meetings are held once a month chaired by District Collector. State level GRC is included in the SLEC chaired by Chief Secretary once a month. Status of GRC is attached to the report under Social Safeguard Management.
	two (2) Road User Surveys with scope, methodologies, and terms of reference satisfactory to the Bank, in order to assess road user's satisfaction with Project results and its implementation, their opinions regarding current and potential sector targets, and their behavioral/ attitudinal changes.	Baseline RUSS done and next survey arrangement completed Survey on completed roads in progress.

SI. No.	LEGAL COVENANTS		COMPLIANCE STATUS							
	SECTION II PROJECT MONITORING, REPORTING AND EVALUATION									
A. Project Reports										
1.	The Project Implementing Entity shall monitor and evaluate the progress of the Project and prepare Project Reports for the Project in accordance with the provisions of Section 5.08(b) of the General Conditions and on the basis of indicators as agreed with the Bank. Each such Project Report shall cover the period of one calendar quarters		The monthly and quarterly Projects Reports are submitted regularly with details							
B. <b>Fi</b> i	nancial Management, Financial Reports and Audits									
1.	The Project Implementation Entity shall maintain a Financial Management System and prepare financial statements in accordance with consistently applied accounting standards acceptable to the Bank		Complied							
2.	The Project Implementing Entity shall prepare and furnish to the Bank, by not later than forty five (45) days after the end of each calendar quarter, interim financial reports for the Project covering the calendar quarter, inform and substance satisfactory to the Bank		Complied							
3.	The Project Implementing Entity shall ensure that the audited Financial Statements for each period shall be:  a. Furnished to the Borrower and the Bank not later than ten (10) months after the end of the period, and		Complied							
	<ul> <li>b. made publicly available in a timely fashion and in a manner acceptable to the Bank.</li> </ul>		Document is open to public							



## 4 Funding & Disbursement

The total disbursement at the end of June 2019 from World Bank was 115.87 USD Million

KSTP-II commenced operations in the year 2013 and funding details are as below

Project appraisal - April 2013

Loan agreement signed - 19 June 2013

Loan Effectiveness date - Sept 6, 2013

Project cost approved by World Bank - US \$ 445 ml

World Bank (IBRD) Loan Assistance - US \$ 216 ml

Project implementation period - 30<sup>th</sup> Oct 2013 to April 30.2021

Expected closing date (Loan) - 30.04.2021

## 4.1 Current Disbursement Status

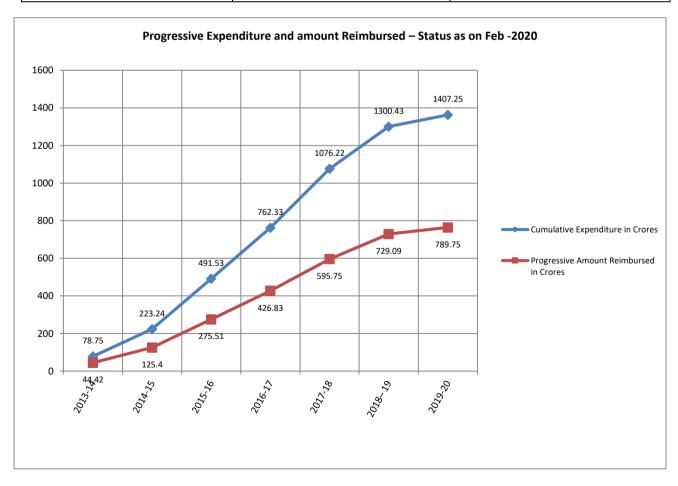
		Claim Date		AMOUNT	DISBURSED	BALANCE
SI No	Claim		EXPENDITURE in Lakh	AMOUNT CLAIMED in Lakh	USD in millions	FUNDS AVAILABLE FOR CLAIM (MUSD)
			TOTAL	TOTAL	TOTAL	TOTAL
						216.00
	Front end fee				0.54	215.46
1	Retroactive	15.06.12 to 15.06.13	1,863.95	1,043.00	1.69	213.77
2	1st Quarter			Í		213.77
3	2nd Quarter	01.07.13 to 30.9.13	1,355.79	764.00	1.23	212.54
4	3rd quarter	01.10.13 to 31.12.13	1,906.01	1,071.00	1.71	210.82
5	4th quarter	01.01.14 to 20.03.14	2,696.00	1,510.00	2.50	208.32
6		21.03.14 to 31.03.14	53.79	30.00	0.05	208.27
7	1st Quarter	01.04.14 to 18.06.14	1,826.41	1,023.00	1.70	206.57
8		19.06.14 to 30.06.14	14.69	8.00	0.02	206.55
9	2nd Quarter	01.07.14 to 30.09.14	1,405.61	787.00	1.27	205.28
10	3rd quarter	01.10.14 to 31.12.14	3,790.21	2,124.00	3.44	201.84
11	4rth quarter	01.01.15 to 28.02.15	3,706.35	2,076.00	3.32	198.52
12	4rth quarter	01.03.15 to 31.03.15	3,704.89	2.076.00	3.32	195.20
13	1st Quarter	01.04.15 to 16.06.15	3,534.14	1,992.00	3.14	192.06
14	1st Quarter	17.06.15 to 30.06.15	154.40	86.00	0.14	191.92
15	2nd Quarter	01.07.15 to 30.09.15	3,527.06	1,977.00	3.04	188.89
16	3rd quarter	01.10.15 to 31.12.15	10,338.17	5,790.00	8.51	180.38
17	4rth quarter	01.01.16 to 13.03.16	6,413.18	3,592.00	5.38	175.00
18	-rui quartei	14.03.16 to 31.03.16	2,861.91	1,603.00	2.41	172.59
19	1st Quarter	01.04.16 to 10.06.16	2,037.40	1,141.00	1.69	170.90
20	1st Quarter	11.06.16 to 22.06.16	2,957.89	1,657.00	2.45	168.45
21	2nd Quarter	23.06.16 to 31.08.16	4.786.10	2,680.00	4.01	164.44
22	Ziiu Quartei	01.09.16 to 30.09.16	3,981.82	2,230.00	3.26	161.18
23	3rd quarter	01.10.16 to 31.12.16	4,079.22	2,284.00	3.40	157.78
24	4rth quarter	01.01.17 to 31.03.17	9,237.79	5,173.00	8.04	149.74
25	1st Quarter	01.01.17 to 31.05.17	4,292.74	2,404.00	3.72	146.02
23 26	1st Quarter	01.04.17 to 31.03.17 01.06.17 to 30.06.17			3.72	
	2.10		3,933.36	2,203.00		142.58
27	2nd Quarter	01.07.17 to 30.09.17	5,897.52	3,303.00	5.10	137.48
28	3rd quarter	01.10.17 to 31.12.17	5,319.40	2,987.00	4.69	132.79
29	4rth quarter	01.01.18 to 28.02.18	6,770.27	3,791.00	5.82	126.97
30		01.03.18 to 22.03.18	3,935.30	2,204.00	3.39	123.58
31		23.03.18 to 31.03.18	1,241.57	695.00	1.04	122.54
32	1st Quarter	01.04.18 to 31.05.18	1,925.29	1,086.00	1.61	120.93
33		01.06.18 to 20.06.18	1,114.33	627.00	2.02	118.91
34		21.06.18 to 22.06.18	1,344.42	753.00		118.91
35		23.06.18 to 30.06.18	89.25	50.00	0.07	118.84
36	2nd Quarter	01.07.18 to 18.09.18	7,104.38	3,982.00	5.49	113.35
37	3rd quarter	19.09.18 to 31.12.18	5,817.34	3,258.00	4.59	108.76

			140,725.59	78,974.56	118.75	
44	3 <sup>rd</sup> Quarter	01.10.19 to 31.12.19	1530.80	865.00	1.19	96.06
43	2 <sup>nd</sup> Quarter	28.06.19 to 30.09.19	2,961.19	1,689.00	2.34	97.25
42		21.06.19 to 27.06.19	2,247.92	1,303.00	1.89	99.59
41		01.05.19 to 20.06.19	1,522.48	853.00	1.23	101.48
40	1st Quarter	01.04.19 to 30.04.19	2,420.03	1,355.22	1.93	102.71
39		01.03.19 to 31.03.19	1,950.03	1,127.00	1.63	104.64
38	4th quarter	01.01.19 to 28.02.19	3,075.19	1,722.11	2.49	106.27

<sup>\*</sup>excluding front end fee

## 4.2 Progressive Expenditure and amount Reimbursed – Status as on 29th Feb- 2020

Voor	Cumulative Expenditure (INR	Progressive Amount Reimbursed
Year	Crores)	(INR Crores)
2013-14	78.76	44.18
2014-15	223.24	125.12
2015-16	491.53	275.52
2016-17	805.26	451.21
2017-18	1076.23	603.04
2018– 19	1300.43	729.09
2019-20	1407.25	789.75



# Estimated Actual Ioan allocation and disbursement received (Bank's Financial Year (July to June) (US\$ million)

Fiscal Year	2014	2015	2016	2017	2018	2019
	July 2013- June 2014	July 2014- June 2015	July 2015- June 2016	July 2016- June 2017	July 2017- June 2018	July 2018-June 2019
Annual	22	43	45	54	32	20
Cumulative	22	65	110	164	196	216
Actual	8.92	14.62	23.48	25.86	23.75	10.08
Cumulative	8.92	23.54	47.02	72.88	96.63	*110.82

<sup>\*</sup>excluding front end fee

#### 4.3 RESTRUCTURING

Through their letter dated May 11, 2018, the Department of Economic Affairs, Ministry of Finance, and Government of India had submitted a request for restructuring of the loan.

Considering the floods and damages witnessed by the state in August 2018, through their letter dated November 15, 2018, the DEA submitted a revised request for utilizing the savings (USD 45 million) from KSTP II Loan for rebuilding Kerala initiative

Component	Original Loan Allocation (Million USD)	Revised Loan Allocation (Million USD)
A1	167.0	125.0
A2	33.0	33.0
В	10.0	10.0
С	5.0	2.0
D (D (Flood Damage Rehabilitation)- PWD & LSGD Roads	0.0	45.0
Total	215.0	215.0

A new Component D was introduced, the funds of which were to be utilized for flood damaged roads. Under this component, roads affectd during the floods of Aug 2018 identified by PWD and further prioritized by Transaction Advisors M/s LNTIEL based on World Bank suggestions shall be taken up for DPR preparation. The details are more fully described in this report in following chapters.

The details of expenditure of Component D was originally as shown in the table below. However Gok decided to remove LSGI roads under this and instructed that this be used by KSTP only. Hence 19 Million USD is added in Component A2 taking that to a total of 33 M USD + 19 M USD = 52 M USD Under RKI roads of PWD, the funds of 23 M USD is proposed

No.	Activity	Cost (in Million \$ By Gok)	Bank financing (in Million \$)
1	PWD roads	40.00	23.00
2	LSGI roads and other Infrastructure	33.00	19.00
3	Support to RKI	6.00	3.00
	TOTAL	80.00	45.00

## **5 Current Project Status**

## 5.1 Component A1:

The upgrading works under the initial stage hereinafter referred to as *Component A1* for seven roads were identified and taken up under the KSTP-II. The major items of works included were improvement to gradient, widening and strengthening the roads including minor realignments wherever essential, reconstruction of narrow bridges and culverts and improvements to drainage system. The carriageway proposed are generally 2 lane roads with width of 7.0 m and hard shoulders of 1.50 mts. on either side. The Right of Way is generally 15.0 Meters and required aquisitions at some locations. The specification adopted for civil works is as per MORTH-Rev 5 & IRC standards. All these seven packages were tendered under World Bank Procurement guidelines and as Item Rate Contracts. The details of these roads are summarized under table 1

The land acquisition for the project roads are almost completed except in the Perimbilavu- Pattambi-Perinthalmanna Road.

Package 3 was further split it into two packages and accordingly Package 3 A and 3 B were tendered.

Two additional stretches of Thiruvalla Town and Bypass were taken up as Package 4A and 4 B.

In total there are 10 Packages under Component A1 as shown in the table covering a total length of **285.01** kms. Out of these, Packages 4, 5, 6 & 7 are completed while six are in progress. Package 1 and 2 are almost completed and in "defect libility period" with ongoing pending works under road furniture items, snag list and additional junction improvement works. These works were undertaken as there was savings in the estimated tendered cost.

Table 1

SI.No	Package No	Stretch of the Project Road	Type of Contract	Length (Km.)
1	KSTP-2/UG/1	Kasargod-kanhangad	Item Rate BOQ	27.78
2	KSTP-2/UG/2	Pilathara-Pappinssery	Item Rate BOQ	20.90
3	KSTP-2/UG/3A	Thalassery-Kalaroad	Item Rate BOQ	28.80
4	KSTP-2/UG/3B	Kalaroad-Valavupara	Item Rate BOQ	25.20
5	KSTP-2/UG/4	Chennaganoor-Ettamannoor	Item Rate BOQ	47.70
6	KSTP-2/UG/4A	Thiruvalla by pass (rearranged from Package 4)	Item Rate BOQ	2.30
7	KSTP-2/UG/4B	Thiruvalla town (rearranged from Package 4)	Item Rate BOQ	2.00
8	KSTP-2/UG/5	Ettamannoor-Muvattupuzha	Item Rate BOQ	40.96
9	KSTP-2/UG/6	Ponkunnam-Thodupuzha	Item Rate BOQ	50.00
10	KSTP-2/OL/7	Perimpilavu-Perintalamanna	Item Rate BOQ	39.37
		Total Length under this Component in	Km is	285.01

All the works are being executed under FIDIC (5th edition) Conditions of Contract. The work involves improvement of State Highways including geometrical improvements and realignments to standard 2 lane of 7 m carriageway and 1.5 m paved shoulders. The Construction Works include:

- Widening the existing pavement where it is less than design width;
- Scarification, clearance, earthworks,
- Granular sub-base, wet mix macadam base course, bituminous mix surfacing,
- Construction of overlays to the existing pavement, inclusive of regarding to a designed vertical profile;
- Geometrical realignments at specific locations;
- Construction of paved shoulders;
- Construction and maintenance of diversion roads
- Construction of lined and unlined longitudinal drains, covered drains and footpaths in urban areas;
- New culverts, new bridges and rehabilitation of existing bridges/culverts and protective works
- Provision of road signs and markings;
- Provision of traffic safety features road furniture and other road safety appurtenances,
- Routine maintenance and maintenance during Defects Rectification Period.
- Environmental protection measures and Social enhancement works/ landscaping works etc.

# 5.2 Detail of the Supervision Consultants for the Packages under this component is as below

Name of consultant	Contract signed	Contract Period	Commencem ent Date	Contract Amount (Rs.) revised amount as per Variation 4	Work Package
CSC-1 – M/s Egis International in JV with M/s Egis India Pvt. Ltd.	28.02.2013	42 months	04.04.2013	38,48,80,907	I, II, IIA , III B ,IV, IVA, IVB & V (190 km)
CSC-2 – M/s MSV International USA	14.05.2014	30 months	14.05.2014	4,41,88200	VI (50 km)

Package VII is under KSTP and supervision monitoring was done by Divisional Office PWD SE

M/s Egis International in JV with M/s Egis India Pvt. Ltd have been given Extension of time up to 31-12-2019 to facilitate the completion of works under Component A 1.

## 5.3 SUMMARY AND STATUS OF THE WORKS UNDER COMPONENT A 1, A 2, B & C

						Pro	ject Details	of KSTP-2	under Sub Cor	mponent A 1	Date: (29.0	)2.2020)						
Sl.No	Package No	Stretch of the Project State Highway / Road Number	Type of Contract	Cotractor's Name	Supervision Consultant	Proposed Length (Km.)	Original Completion date	EOT-3 (Date)	Extended Completion date (Latest)	DLP	Awarded Cost of the Project (Cr.)	Value upto IPC submitted /Final Payment done as on date in Crores	Additional Works	Saving / Overbudget/ Running Bills	Status of the project	TOC /Completion certificate issued	Remarks / Reasons	Variation Order/ Supplementary Agreemen Status
1	KSTP-2/UG/1	Kasargod-kanhangad-SH-57	Item Rate BOQ	M/s.RDS Projects Limited	EGIS India	27.78	23.04.2015	31.01.2020	31-03-2020	31-03-2021	133.05	122.10	6.15	4.80	Physical progress :99.00 %	Section 1 : 0+000 to 23+180 & 23+350 to 27+780 (TOC 01-04-2018)	Numbering of culverts in progress (Under DLP	6.15 Cr additional works Variation in progress
															Financial progress :99.00 %	Section 2 :23+180 to 23+350 (01-07- 2018)	period)	w.r.t. to IPC 34
2	KSTP-2/UG/2	Pilathara-Pappinssery-SH-67	Item Rate BOQ	M/s.RDS Projects Limited	EGIS India	20.90	22.04.2015		31-03-2020	31-03-2021	118.29	101.24		17.05	Physical progress :99.00 % Financial progress :99.00 %	Section 1 : Except Ramapuram bridge and Thavam ROB (01-04-2018)	DLP extension given (15-06- 2019	VO-(1-11)+ VO-12 _7.05 Ci- be approved (vide EP/18/PJ/1875 Dated 30-0 2016) Plus VO -12 to Vo 2
																Section 2 :Ramapuram Bridge and Thavam ROB (01-09-2018)	DLP extension given (30-06- 2019	Contractor has started the work on Oxbow land as approved.
3	KSTP-2/UG/3A	Thalassery-Kalaroad-SH-30	Item Rate BOQ	M/s.Dinesh chandra R.Agarwal Pvt.Ltd.,	EGIS India	28.80	26.06.2018	31-10-2019	31-03-2020	31-03-2021	156.33	92.33		64.00	Physical progress : 62.40 %	Section 1 : Road works other than Eranholi Bridge	In progress	VO 8 & VO 9 submitted for approval
								31-12-2019							Financial progress : 60.95%	Section 2 :Eranholi Bridge Work	In progress	IPC 20 in process. EOT-4 Submitted till 30.06.20
4	KSTP-2/UG/3B	Kalaroad-Valavupara-SH-30	Item Rate BOQ	M/s.GHV-EKK Infrastructure & Co.	EGIS India	25.20	25.09.2018	15-07-2019	31.03.2020		209.68	178.12	5.06	26.50	51	Section 1 : Except Iritty Bridge and Kootupuzha Bridge	In progress (Slope protection for PAP)	EOT approval till 30.6.20
								31-12-2019							Physical progress :86.28 % Financial progress : 84.90 %	Section 2 :Iritty Bridge & Kootupuzha Bridge	In Progress (Kootupuzha Bridge held up due to forest clearance)	IPC 32 approved & IPC 33 t process. And VO 19 submited for approval
5	KSTP-2/UG/4	Chennaganoor-Ettamannoor- SH-1	Item Rate BOQ	M/s Delma Sreedhanya Jv.	EGIS India	47.70	24.11.2017		31-03-2018	31-03-2019	293.58	278.18		15.40	Completed	TOC issued 01.04.2018	Closure reports to amend an (Accident Report pending )	
6	KSTP-2/UG/4A	Thiruvalla by pass (rearranged from Package 4)	Item Rate BOQ	M/s.GHV India Pvt Ltd	EGIS India	2.30	06.10.2019		30-04-2020		37.03	10.58		26.45	Physical progress : 46.23 % Financial progress :28.57 %	EOT Proposed	Extra claim for PSC Girder with Semi Integral design in dispute	n IPC-5 submitted
7	KSTP-2/UG/4B	Thiruvalla town (rearranged from Package 4)	Item Rate BOQ	M/s.EKK Infrastructure Ltd.,	EGIS India	2.00	06.10.2019	15-12-2019	15-01-2020		7.77	4.37	0.93	3.40	Physical progress : 84.81 % Financial progress : 56.24 %	EOT Proposed	In progress	VO-2 submitted for approof additional work of MC road
8	KSTP-2/UG/5	Ettamannoor-Muvattupuzha	Item Rate BOQ	M/s.NAPC Ltd.,	EGIS India	40.96	03.08.2016		25-02-2018	25-02-2019	171.49	163.68		7.81	Completed	Performance certificate issued Section 1 : 06.02.2019 Section 2 :25.02.2019	Closure reports to amend an soil issue to be resolved	nd resubmit by EGIS / Exce
9	KSTP-2/UG/6	Ponkunnam-Thodupuzha	Item Rate BOQ	M/s.GHV-EKK Infrastructure & Co.	M/s MSV International USA	50.00	09.12.2016		28-03-2017	28-03-2018	227.13	223.25		3.88	Completed		Closure Report to be prepar	red
10	KSTP-2/OL/7	Perimpilavu-Perintalamanna	Item Rate BOQ	M/s Nath constructions	Under KSTP	39.37	02.03.2017		02-03-2017	02-03-2018	8.11	8.11		0.00	Completed		Closure Report to be prepar	red
		Total Length u	nder this Component in	Km is		285.01					1362.46	1181.96		169.29				

Project Details of KSTP-2 under Sub Component A	12
---	----

Sl.No	Package No	Stretch of the Project Road	Type of Contract	Cotractor's Name	Supervision Consultant	Length (Km.)	Estimated Cost	Orginal completion Date	Appointed date	Revised Appointed date	Awarded Cost of the Project (Cr.)	Actual Unt Cost /km in Crores	Additional Works	Saving / Overbudget/ Running Bills	Status of the project	TOC /Completion certificate issued	Remarks / Reasons	Variation Order/ Supplementary Agreement Status
1	KSTP-2/OL/8A	Punalur-Konni	Engineering Procurement Construction (EPC)	Steering Committee	M/s Cunsulting Engineering Services	29.84	226.61				237.94	7.97						
2	KSTP-2/OL/8B	Konni - Placherry	Engineering Procurement Construction (EPC)	M/S.EKK Intrastructure	M/s Cunsulting Engineering Services	30.16	274.74	29-10-2021	09-10-2019	01-11-2019	279.00	9.25			Not Yet Started			
3	KSTP-2/OL/8C	Placherry -Ponkunnam	Engineering Procurement Construction (EPC)	J V of M/s Sreedhanya and Nath Constructions	M/s Cunsulting Engineering Services	22.17	236.79	21-12-2021	06-09-2019	23-12-2019	248.5	11.21			Not Yet Started			
						82.17	738.14				765.4405							

SI.N	Package No / Ty	De Stretch of the Project Road	Type of Contract	Cotractor's Name	Supervision Consultant	Length (Km.)	Estimated Cost	Orginal completion Date	Appointed date	Others	Awarded Cost of the Project (Cr.)		Additional Works	Saving / Overbudget/ Running Bills	Status of the project	TOC /Completion certificate issued	Remarks / Reasons	Variation Order/ Supplementary Agreement Status
1		Chemmannar Gap road Km. 0/00 to 31/500 (except km. 10.650)	Engineering Procurement Construction (EPC)	(Single Bid from	M/s Cunsulting Engineering Services	29.94	120.98	Re-ten	der and Bid openin	g on 13.03.2020		4.04						
2		Painavu-Thannikandom	Engineering Procurement Construction (EPC)	M/s.EKK Infrastructure Ltd.,	M/s Cunsulting Engineering Services	21.00	86.82				95.40	4.54			Not Yet Started			
3		Adoor- Chenganoor	Engineering Procurement Construction (EPC)	M/s.EKK Infrastructure Ltd.,	M/s Cunsulting Engineering Services	23.8	93.59				98.1	4.12			Not Yet Started			
						74.74	301.39				193.5							

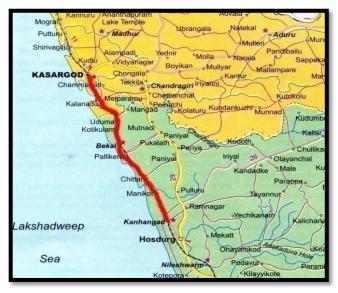
			T						Safe Cor	ridor Demonstr	ation Project (Under	Component B	& C)					
									EOT		DLP				Saving /			
SI.N	0	Package No	Stretch of the Project Road	Type of Contract	Cotractor's Name	Supervision Consultant	Length (Km.)	Completion date		Completion date	Duration from Completion date	Awarded Cost of the Project (Cr.)	Revised cost of th Project (Cr)	IPC Payment in Cr	Overbudget/ Running Bills /Balance	Status of the project	Completion certificate issued	Remarks / Reasons
4	KSTI	P-2/OL/8	Kazhakuttom-Adoor	Item Rate BOQ	M/s.GHV-EKK Infrastructure & Co.	under KSTP (AEE/AE/EE)	78.65	27.04.2018	31.12.2019	27-04-19		146.67	138.23	113.21	8.44	Physical progress :93.92% Financial progress : 87.33 %	EOT proposed upto 31-12-2019	SCDP project under Component of B & C
			Overall	Length in Km			445.83											
											hallenge Fund of KSTP							
											DLP							
SI.N	o	Package No	Stretch of the Project Road	Type of Contract	Cotractor's Name	DPR Consultant	Length (Km.)	Date of Commencement	Completion date	Completion date	Duration from Completion date	Estimated Cost of the Project (Cr.)	Awarded Cost in Lakhs			Status of the project	Completion certificate issued	Remarks / Reasons
1			Vypin-Munambam				25.00		•	•		10.02				Draft DPR to be submitted on		
2			Medical College-Kannamoola- Pallimukku-Pettah				5.00					7.50				before 13/03/20		
3	Siı	ingle Package for	Vellayambalam-Thycaud Road- Thampanoor	DPR is	in Progress	M/s EGIS India Pvt Ltd	3.00	Cos	t estimates nre	pared by District	Authorities	7.00						
4		DPR's	Thrissur-Kunnamkulam State Highway	J		, S 2 5 5 Maid 1 Vt 2td	24.30		commutes pre	parca by District	Authorities	4.00				EOI in progress		
5			Kottiyam-Kundara Road				11.600					5.00				20 progress		
6			Pavangad-Korapuzha				5.500											
							74.40					43.52						

#### Details below as per MPR submitted by EGIS -February- 2020

## **Packages under Component A1 Status**

## 5.4 Kasargod to Kanhangod Road -SH-57

This stretch of Length - 27.76 km. Covers Kasargod, Pallikkara, Manikoth and Kanhangad areas and Tourist destinations at Bakel Fort and Ezhimala come under this stretch.



Name of Conttractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Upto Feb-2020)	Financial Progres in % (Upto Feb- 2020)
M/s RDS Projects Pvt Ltd	23-04-2015	133.05	99 %	99%

EOT Date	DLP completion date	Variation Order Value in crores	Anticipated Revised Project Cost	Billed Amount made till the end of Jan- 2020 in Crores
28-02-2018	27-02-2019	21.66	121.99	122.099

The Taking-Over Certificate issued for Sections:

- Except for Kanhangad town w. ef 01st April 2018
- For Kanhangad town w.e.f 01st July 2018

Work as per Snag list has been completed. However, since the as-built drawings, PAP works & additional works proposed have not been completed, Defect Liability Period has been extended.

### SUMMARY OF PROJECT COST

<ul> <li>Initial Contract Value (Rs.)</li> </ul>	- 1,33,05,79,485/-
• Contract value of works executed (Rs.)	- 92,86,10,752/-
<ul> <li>Value of works as per VOs (Rs.)</li> </ul>	- 21,66,82,406/-
<ul> <li>Price adjustment as finalized(Rs.)</li> </ul>	- 2,57,41,802/-
<ul> <li>Additional works proposed</li> </ul>	- 4,88,93,909/-
• Total Value including Price Adjustment	- 1,21,99,35,883/-
<ul> <li>Saving in Project Cost</li> </ul>	- Rs. <b>11,06,43,602/</b> -

## **Construction Activities**

Works as per Snag list completed. Based on the instructions from Employer, Contractor has performed certain additional works during DLP. Additional works proposed for Kanhangad town, Palakkunnu widening work have been completed. Status of additional works for Bekkal Road is furnished below:

Sl No	Item	A/ U	Total scope	Works completed	Balance works	Remarks
			_	upto 31.01.2020		
a)	DBM & BC work	Lm	280	280	0	
b	Drain	Lm	465	425	40	Due to encumbrance of land and electric post to be cleared by DTPC Bekkal
c)	Footpath & Hand rail	Lm	540	540	0	
d)	Parking area for Auto Rickshaw No.	sq m	250	250	0	
e)	Road marking / Studs / Street lights	Lm	280	280	0	

	PALLIKKARA ROB SERVICE ROAD WORK (CHAINAGE: - 14+600 RHS)												
SI	Chaina	age	Side	Description of	Status	Remarks							
	From	То	0.00	Work	2000								
1	14+600	Service Road	RHS	Embankment Filling, SG, GSB & WMM, DBM & BC	Embankment filling Completed and stopped	Work Stopped due to Public petition filed against KSTP (Case registered)							

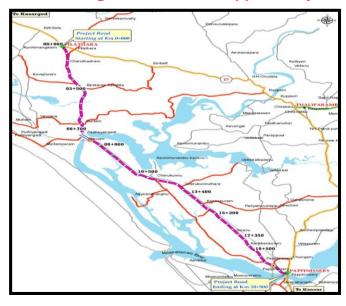
Due to Elec. Pole not Shifited, the balance work has been pending from 14+550 to 14+590 LHS.

Performance Certificate issued. As-built drawings submitted are under review and reconciliation of quantities are in progress. Draft Final Statement has to be submitted.

### 5.4.1 Key Issues

- Employer has requested to carry out some additional works in Kanhangad town, Palakkunnu town and Bakal Fort Approach Road. Contractor has started the activities at said locations. Supplementary Agreement for the additional works have been executed. Some works pending for Bakal Road due to public objection and hinderences. Encumbrance on 60m length of road under upgradation was removed by DTPC, Bekkal on 22nd Dec 2019.
- Contract for Rehabilitation of existing Bridges at "Bakal" and "Chandragiri" through E-tendering has been awarded to M/s PADMAJA SPECIALITIES, Kochi and Agreement executed. Contractor yet to commence the works pertaining to these bridges. EOT issued by Employer to complete the works by 31<sup>st</sup> January 2020. Also, a VO has been initiated. Contractor further submitted application for EOT and same is recommended to Employer to complet whole of the works by 31<sup>st</sup> March 2020.
- ATL has inspected the works on project road and additional works on Bekkal on 21.01.2020.

## 5.5 Package 2 -Pilathara -Pappinissery-SH-67



Name of Conttractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Upto Feb-2020)	Financial Progres in  % (Upto Feb-2020)
M/s RDS Projects Pvt Ltd	22-04-2015	118.29	99 %	99 %

EOT Date	DLP completion date	Variation Order Value in crores	Anticipated Revised Project Cost	Billed Amount made till the end of Feb- 2020 in Crores
31-03-2018	31-03-2019	15.96	98.330	101.24

The Taking-Over Certificate issued for Sections:

- Except Ramapuram Bridge and Thavam ROB w.e.f 01st April 2018
- For Ramapuram Bridge and Thavam ROB w.e.f 01st September 2018

Since the work as per Snag List has not been completed, Defect Liability Period has been extended for Section - 1.

### SUMMARY OF PROJECT COST

Initial Contract Value (Rs.)
 Contract value of works executed (Rs.)
 Value of works as per VOs (Rs.)
 Price adjustment as finalized (Rs.)
 Additional Works proposed
 Total Value including Price Adjustment
 Saving in Project Cost
 1,18,29,77,833/82,36,71,794/- 22,68,74,96/- 1,56,78,061/98,33,04,118/- Rs. 19,96,73,715/-

### **Construction Activities**

Works as per Snag list like providing precast drain cover slab, Painting of stair case No.2 of Thavam ROB and plumbing work on Pappinissery ROB for taking town the drainage water to ground level with out splashing on to the shops existing on both sides are in progress.List of Balance Works are shown in Annexure.

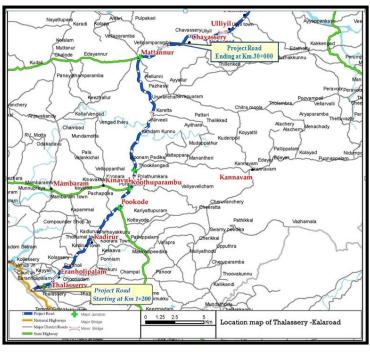
In addition to the works as per Snag List, instructions were issued from KSTP during the DLP to carry out certain additional works like reconstruction of Old Ramapuram Bridge Approach and development of Oxbow land at Ramapuram. Supplementary Agreement has been executed and the works are in progress.

PROJECT		Upgradati	on of the Road from Pilathara (K	m 0+000) to Pa	appinisse	ry (Km 20+	·900) of SH-67			
CLIENT	LIENT Project Director Kerala State Transport Project Phase II									
CONSULTA	ANT Ms EG	GIS Interntio	nal SA IN jv WITH egis India Cons	ulting Enginee	rs Pvt Ltd					
Contractor	:- M/s RDS	Project Ltd								
			SNA	G LIST FOR	BALAN	CE WOR	K AS ON 29.2.	2020		
SL.NO.	Descripti	on of work	Balance work as on 29.2.2020	Location	QTY	Unit	Rate	Amount of work to	Proposed Date of	Remarks/Balance work
SI	Cha	inage	Dalance Work as on 25.2.2020	Location	Q11	Oilit	Nate	be done	Completion	nemarks/ Dalance WORK
	From	To								
PART (A)			Project cor	ridor ( except	Thavam F	OB & Ran	napuram bridge)			
1	0+000	20+900	Precast Drain coverslabs (Balanc	e Work)	100	lm				Completed
PART (B)		ļ	1	Thavam ROB &	Ramapu	ram River	Bridge	-		
1	4+050	LHS	Oxbow land	Ramapruam	1	No	26,00,000.00	9,10,000.00		Resturant work in progress
								9,10,000.00		
			Down taking pipes			lm			15-Feb-20	work in progress
			Stair Case		1	Lms		-		Completed
								-		
			TOT	'AL				9,10,000.00		

## **Key Issues/ Delays in Feb-2020**

- Employer has requested to carry out some additional works for reconstruction of the Old Ramapuram Bridge approach and oxbow land development. Contractor has started the work on Oxbow land as approved.
- Works on Rehabilitation of existing Bridge at "Pazhayangadi" has been awarded through E-tendering to M/s PADMAJA SPECIALITIES, Kochi. Works are in progress. EOT issued by Employer to complete the works by 31<sup>st</sup> January 2020. Also a VO has been initiated. Contractor further submitted application for EOT and same is recommended to Employer to complet whole of the works by 31<sup>st</sup> March 2020.
- The expansion joints of Chandragiri Bridge have been reconstructed.
- The ATL has inspected the works on project road on 22.01. 20

## 5.6 Package 3A – Thalassery to Kalaroad -SH-30



Name of Conttractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Upto Feb-2020)	Financial Progress in % (Upto Feb-2020)
M/s.Dinesh Chandra R Agrawal Pvt.Ltd	26-06-2018	156.33	62.40	60.95
EOT-03 (For Road Work & Eranholi Bridge - Approved)	EOT-04 (Approved)	Variation Order Value in crores (VO-01 to VO-09)	Anticipated Revised Project Cost	Billed Amount made till the end of Feb- 2020 (Net Amount)
31 <sup>st</sup> October-2019	31 <sup>st</sup> March -2020	19 96 Cr	152 29	92 32 Cr

### EOT-03 for Extension of time:

- a) Eranholi Bridge Approaches and Service Road and whole project road from Km 1+200 to Km 30+000
   31.10.2019
- b) Commissioning of Eranholi Bridge 31.12.2019,

has been approved by the Employer. Further to that Extension of Time upto 31<sup>st</sup> March 2020 has been issued based on the application of the Contractor. Revised work programme was submitted on 28.02.2020 with project completion date as 30.06.2020, the same is under review of CSC.

## **Work Progress**

Cumulative Physical progress achieved is 62.40% as per original contract value and 62.10% with respect to assessed revised estimate of 152.29 Crores.

Sl No.	Item	Monthly Progress	<b>Cumulative Progress</b>	Balance Work	
	Main C	Carriageway			
1.	Exc up to SG	0.355 Km	25.560 Km 3.240 Km		
2.	GSB	0.495 Km	25.550 Km	3.250 Km	
3.	WMM	1.115 Km	25.320 Km	3.480 Km	
4.	DBM	0.850 Km	24.895 Km	3.905 Km	
5.	BC	3.738 Km	20.308 Km	8.493 Km	
•	Str	ructures			
<b>7.</b>	Major Bridge @ 2+910 Minor Bridge @ 21+162	Pedestal concrete and Fixing of Elastomeric Bearing on Pier P2 & P3. Girder Launching completed between Pier P2 & P3. Girder shuttering and reinforcement work in Progress at A1 side yard.	Navigation Department and the drawings approved by Client. The design has been proof checked by IIT, Palakkad.  Pier work completed at P1, P2 & P3.  Pedestal concrete and Fixing of Elastomeric Bearing on Pier P2 & P3. Girder Launching completed between Pier P2 & P3.  Piling work completed at Abutment A1 & A2		
8.	Major Bridge @19+758		Bridge completed and o	pened for Traffic.	
9.	Minor Bridge @ 29+570		Bridge completed and o	pened for Traffic.	
	Culverts				
10.	Pipe Culvert		Pipe Culverts - 6 Comp	leted out of 6 Nos	
11.	Box Culvert		Box Culverts –30 Completed out of 30 Nos		
12.	Slab Culvert	1 Nos in progress	Slab Culverts – 28 Completed out of 30 Nos		
13.	Drain- Placing		21209 m Comple	ted out of 23890 m	
14.	Gabion Wall	600 Cum	4011.9 cum Comple	eted out of 4995 Cum	

## **Financial Progress**

Up to end of previous Month		This Month		Cumulative to end of this Month	
Target	Achieved	Target (as per Rev. Wp-5)	Achieved	Target	Achieved
61.404%	58.188%	10.483%	2.720%	71.887%	60.95%*

<sup>\*</sup>Cumulative Financial progress achieved is 60.95%. The assessed revised cost of project is Rs.152.29 crores and based on this, the financial progress will be 62.56%.

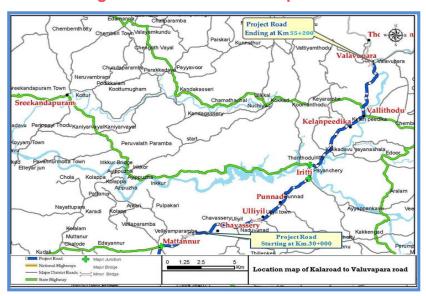
Further details may be found in:

O Annexure - 5.4, 5.5, 5.6, 5.7 & 5.8 are enclosed for details regarding Progress of Work

## 5.6.1 **Key Issues**

- Delay in Acquisition of Additional Land for Eranholi Bridge due to Revision of Design.
- Delay in shifting of BSNL & Electric poles due to shortage of BSNL staff to supervise the works and delay in getting permission for shut down.

## 5.7 Package 3B - Kalaroad -valavupara



Name of Conttractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Feb-2020)	Financial Progres in %(Feb-2020)
M/s.GHV-EKK Infrastructure & Co	25-09-2018	209.68	86.28	84.95
EOT 04- for				

EOT-04- for Road Works & Major Bridges (Approved)	TOC Issued for Road works	Variation Order Value in crores (V0-1 to V0-19)	Anticipated Revised Project Cost	Billed Amount made till end of Feb-2020 (Net Amount)
15 <sup>th</sup> July-2019				
31 <sup>st</sup> Dec-2019	16 <sup>th</sup> July-2019	9.242	205.22	178.12 Cr

EOT-04 has been granted to complete the works on 15<sup>th</sup> July 2019 and time of completion for Iritty and Koottupuzha Bridges along with approaches as 31.12.2019.

Taking over certificates have been issued for a) Km. 30+000 to Km.40+000 with effect from  $16^{th}$  March 2019 and b) Km. 40+000 to Km.55+200 (except Bridges & its Approaches of Iritty and Koottupuzha) from  $16^{th}$  July 2019.

Contractor has requested extention of time up to 30<sup>th</sup> June 2020 for the completion of Iritty, Kootupuzha Bridges and its approaches and the same is under scrutiny.

## **Work Progress**

## Cumulative Physical progress achieved is 86.28 %

Sl. No.	Item	<b>Monthly Progress</b>	Cumulative Progress
1	GSB	0.260 km	23.60 Km
2	WMM	0.440 km	23.56 Km
3	DBM	0.440 km	23.56 Km
4	BC	0.460 km	23.56 Km
	Structures		
5	Minor Bridge Ch. Uliyil bridge.	. 35+405	completed
6	Major Bridge Ch. 42+198 Irrity bridge.	Deck slab for A2-P2 span concreting completed during this month. Kerb concreting for A2-P2 span is in progress.	Revised drawing for piles (6nos), Pile cap and piers for piers P1 and P2 approved.  Foundation & Substructure – Completed.  A1-P1 and A2-P2 superstructure work completed except crash barrier and wearing coat.
7	Major Bridge ch. 53+865 Kootupuzha bridge	Nil	Deck slab of A1-P1 & P1-P2 span completed. Crash barrier and kerb for A1-P1 and P1-P2 completed. Works of P3, P4, A2 stopped by Karnataka Forest Department. The case has been resubmitted to the Principal Chief Conservator of Forest on 1st April 2019. Decision awaited.
8	Culverts	Nil.	Box culvert- 49Nos completed out of 50 nos. Pipe Culvert- 22 Nos completed out of 22 nos. Widening / slab culvert – 14 Nos completed out of 14 nos.
9	Pre cast Drain - Casting	Nil	29842m out of 30922 m.
10	Drain (Precast + Cast in situ)	Nil	33100 m out of 36730m.

Sl. No.	Item	<b>Monthly Progress</b>	<b>Cumulative Progress</b>
	placing		
11	LED Solar		
11	Street Lighting	Nil	247Nos.
	OV Road		
	DLC	Nil	806 m
	PQC	Nil	806 m
12	Drain	Nil	1256 m
12	DBM & BC	Nil	200 m
	Paver Block	Nil	2045 Sqm
	Pazhassi Park	Compound wall	
	raziiassi Park	construction started	Work in progress

## **Financial Progress**

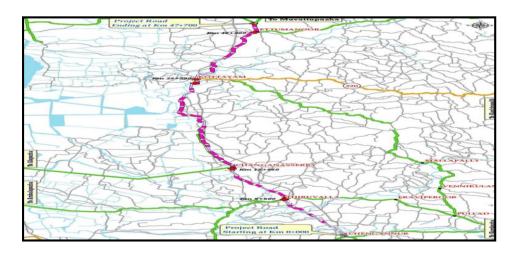
Up to end of previous Month		This Month		Cumulative to end of this Month	
Target	Achieved	Target	Achieved	Target	Achieved
100.00%	83.22%	*	1.68%	100.00%	84.95%**

<sup>\*</sup> Revised programme not submitted by the Contractor, therefore revised target not available.

## **Key Issues**

- The works on Karnataka side of Koottupuzha Bridge on the Kerala-Karnataka border was stopped due to objection from Karnataka forest department.
- Stock yard for excess earth stacking to be finalised.

## 5.8 Package 4 - Chengannur - Ettumanoor - Muvattupuzha - SH1



<sup>\*\*</sup> Cumulative Financial progress with respect to the revised Estimate cost of Rs. 205.22 crore is 86.75%.

Changannur Ettumanoor Muvattupuzha stretch of SH-1, MC (Main Central) Road, one of the most important and oldest roads in Kerala, passing through Thiruvalla, Changanasserry, Kottayam, Ettumannor, Kuravilangad, Kuttathukulam.Total length covered is 88 kms.

Road portion from Thiruvananthapuram (Venjaramoodu) to Chengannur was taken up under Phase I. Bypass at Thiruvalla also forms part of this stretch. The road passes through the plantation areas and provides access to the tourist centres of Kumarakom and Thekkady.13 bridges will be constructed in this stretch.

The improvement for this road portion is proposed in three construction packages, Chengannor-Ettumannor (41km), Ettumanoor-Muvattupuzha (47km) and Thiruvalla Bypass (2.30 km). Reconstruction of three Major Bridges and Nine Minor Bridges are included in this stretch.

Name of	Original date of	Contract Value in	Physical	Financial Progres
Conttractor	completion	Crores	Progress in %	in %
M/s Delma Sreedhanya Jv	24-11-2017	293.58	completed	completed
		Variation Order Value	Anticipated	Billed Amount made
EOT Date (Approved)	TOC Issued date	in crores	Revised Project	till date
			Cost	
31-03-2018	01.04.2019			

Salient Features of this Package

#### Scope of Works (45.40 Km):

Construction of Major Bridges - 3

Construction of Minor Bridge - 5

New Box culverts - 9

Widening Slab culverts - 8

Reconstruction of Culverts - 59

Foot path, solar lights

## 5.9 Package 4A - Thiruvalla by pass



Name of Conttractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Feb-2020)	Financial Progres in %(Feb-2020)		
M/s.GHV-EKK Infrastructure & Co	06-10-2019	37.03	46.23	28.57		
Date of commencement	EOT-01 – Approved	Variation Order Value in crores	Anticipated Revised Project Cost	Billed Amount made till end of Feb-2020 (Net Amount)		
07.01.2019	31.12.2019	1.80 Cr		10.58 Cr		

The date of commencement of this project is 07<sup>th</sup> January 2019 and date of completion is 6<sup>th</sup> October 2019. Works are not completed and EOT-1 issued by Employer for the whole project upto 30-04-2020.

## **Work Progress**

## Cumulative Physical progress achieved is 46.23%

Sl. No.	Item	Monthly Progress	<b>Cumulative Progress</b>	
1	GSB	0.050 km	1.410 Km	
2	WMM	0.050 km	1.410 Km	
3	DBM	0.070 km	1.410 Km	
4	BC	0.900 km	0.650 Km	
5	Roadwork Details	• GSB, WMM, DBM & BC completed from	• BC work from Km:0+000 to Km:1+410 and Km: 1+450 to Km:1+700 has been completed.	

Sl. No.	Item	<b>Monthly Progress</b>	Cumulative Progress		
		Km: 1+130 to Km: 1+200.  • Embankment work in progress from Km:2+150 to Km:2+250.	<ul> <li>Construction of islands of road junction at start point (0+000) of bypass is partially completed. Work stopped due to public protest.</li> <li>Embankment work is in progress from Km:2+150 to Km:2+250.</li> <li>Road marking work in progress.</li> </ul>		
	Structures				
6	Minor Bridge at km 0+390		<ul> <li>Minor bridge structure completed by the previous contractor.</li> <li>Construction of cellular box approaches on both sides of the minor bridge has been completed.</li> <li>BC completed over the bridge and both approaches</li> <li>Quartering work by providing gabion walls completed.</li> <li>Footpath tiling work completed over the bridge.</li> </ul>		
7	Viaduct from km 1+780 to km 2+016	<ul> <li>Pier 2nd lift completed at P2 &amp; P3 and pier cap completed at P5.</li> <li>Shuttering works for Pier P1 is in progress.</li> <li>5 Nos of PSC girderes has been cast</li> <li>Preparations for Routine Vertical load test at P1 locations is in progress.</li> </ul>	<ul> <li>Piling works completed. Total 60 Nos Done.</li> <li>Pile caps completed at all locations except A1</li> <li>Pier completed at A2, P8, P7, P6, P5, P4, P3 &amp; P2 and pier cap completed at P5, P7 &amp; P8 and abutment cap completed at A2.</li> <li>Shuttering works for Pier P1 is in progress.</li> <li>The work on precasting of PSC girders is very slow and this would prolong the time required for completion of viaduct. So far, only 6 Nos of PSC girder has been cast out of 36 Nos required for the superstructure.</li> <li>Preparations for Routine Vertical load test at P1 locations is in progress.</li> </ul>		

Sl. No.	Item	<b>Monthly Progress</b>	<b>Cumulative Progress</b>	
8	Flyover at 1+300	<ul> <li>crash barrier, expansion joint works and crash barrier painting works completed on flyover.</li> <li>Gap slab Casting work completed at A1 side of Flyover</li> </ul>	<ul> <li>Bridge proper completed by previous contractor.</li> <li>Work on RE wall and friction slab over RE wall at A1 side approach of flyover and BC laying work on A1 approach has been completed.</li> <li>Wearing coarse over Bridge, crash barrier, expansion joint works and crash barrier painting works completed on flyover.</li> </ul>	
	Drain and Pro	otective Works		
9		<ul> <li>RCC Breast wall Final Lift completed from Km:1+460 to Km:1+480</li> <li>Gabion wall works completed from Km:0+460 to Km:0+700 B/s. 550m has been completed.</li> <li>Turfing work from Km: 0+080 to Km:0+600 B/S has been completed and from Km0+600 to Km:0+800 is in progress.</li> <li>Metal Beam crash Barrier fixing work from Km:0+050 to Km:0+800 B/S has been partially completed.1200m done.</li> </ul>	<ul> <li>RCC Breast wall completed from Km:1+460 to Km:1+480</li> <li>Stone Masonry Retaining wall Completed from Km:1+393 to Km:1+402, Flyover A2 side.</li> <li>Gabion wall works completed from Km 0+050 to Km 0+460 B/S and from Km:0+460 to Km:0+700 B/s. 1100m has been completed.</li> <li>PCC Retaining wall Work completed at Km:1+120(B1-B1 Jn)</li> <li>RCC drain work completed at Km:0+000 (towards Chengannoor) for a length of 87.5m and from Km: 0+000 to Km:0+012 for a length of 11.5m.</li> <li>Turfing work from Km: 0+080 to Km:0+600 B/S has been completed and from Km0+600 to Km:0+800 is in progress.</li> <li>Metal Beam crash Barrier fixing work from Km:0+050 to Km:0+800 B/S has been partially completed.1200m done.</li> <li>Cross Culvert works upto slab completed at 1+420</li> <li>Footpath work completed at 0+100 and is in progress at flares of B1-B1 Junction.</li> </ul>	

Sl. No.	Item	Monthly Progress	<b>Cumulative Progress</b>		
		<ul> <li>Cross Culvert works upto slab completed at 1+420</li> <li>Footpath work completed at 0+100 and is in progress at flares of B1-B1 Junction.</li> <li>Chute drain work in progress.</li> </ul>	Chute drain work in progress.		

Progress achieved up to 29th February- 2020 in comparison with original programme as given.

## **Financial Progress**

Up to Dec Month		This	Month	Cumulative upto end of this Month	
Target	Achieved	Target	Achieved	Target	Achieved
100%	26.05%	*	2.52%	100%	28.57%

<sup>\*</sup> Revised programme yet to be submitted by the Contractor.

## **Key Issues**

- Construction of islands of road junction at start point (0+000) of bypass is partially completed. Work stopped due to public protest.
- The work on precasting of PSC girders is very slow and this would prolong the time required for completion of viaduct. So far, only 6 Nos of PSC girder has been cast out of 36 Nos required for the superstructure.
- Due to public protest, gaps left on crash barrier. However, this to be completed considering the road safety.
- Contractor needs to deploy adequate resources for execution of balance road works and the work on viaduct with in the Time extension granted.

# 5.10 Package 4B - Thiruvalla town



Name of Conttractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Feb-2020)	Financial Progres in % (Feb-2020)
M/s.GHV-EKK Infrastructure & Co	06-10-2019	7.77	84.81	56.24
Date of commencement	EOT-01 – Approved	Variation Order Value in crores VO-01	Anticipated Revised Project Cost	Billed Amount made till end of Feb-19 (Net Amount)
07.01.2019	15 <sup>th</sup> Dec-2019	0.202 Cr		4.37 Cr

The date of commencement of this project is  $07^{th}$  January 2019 and date of completion is  $6^{th}$  October 2019. Works are not completed and Contractor has requested for EOT-01.

# 5.10.1. Work Progress

# Cumulative Physical progress achieved is 84.81%

Sl. No.	Item	<b>Monthly Progress</b>	Cumulative Progress
1	Roadwork (Total Length 2.010 Km)	<ul> <li>Interlock Footpath Laying work in progress 3100Sqm Completed and 815m Balance.</li> <li>PCC Retaining wall completed at 7+600 (22m done).</li> </ul>	<ul> <li>BC works completed from 7+440 to 9+230. Balance 50m of interlock tile laid area will be relayed under Pkg-4A.</li> <li>Kerb Fixing work for footpath is in progress. 2900m completed and 300m Balance.</li> <li>Interlock Footpath Laying work in progress 3100Sqm Completed and 815m Balance.</li> </ul>

Sl. No.	Item	<b>Monthly Progress</b>	<b>Cumulative Progress</b>
			<ul> <li>Road marking and stud fixing and sign board fixing works completed by 90%.</li> <li>PCC Retaining wall completed at 7+600 (22m done).</li> </ul>
	Structures	I .	<u> </u>
2	Culverts	Culvert Extension     work in Completed	Culvert Extension work to RHS Completed. Only catchpit work balance.
3	Drain	<ul> <li>Cast-in-situ drain work completed from Km:7+600 to Km:7+624(LHS)</li> <li>Coverslab fixing work in progress</li> <li>Drain cleaning work in progress from Km:7+900 to Km:9+000</li> </ul>	<ul> <li>Cast-in-situ drain work completed for 342m, from Km:7+393 to towards Chengannoor (LHS)(15m), from Km:7+505 (LHS), from Km:7+600 to Km:7+668(LHS) from Km:7+778 to Km:7+835(LHS) and from Km:7+873 to Km:7+965 (LHS).</li> <li>Drain cleaning works completed at site. Total 1124m done.</li> <li>Cover slab replacement work is in progress.</li> </ul>
4	Utility Shifting Works	<ul> <li>Laying of 57m of 300 D1 pipe has been done the work has been completed in this Month.</li> <li>Laying of 46m of 500 D1 pipe has been done the work has been completed in this Month.</li> <li>Laying of 381m of 160 PVC pipe has been done in this Month.</li> </ul>	<ul> <li>Laying of 507m of 300 DI pipe has been done and the work has been completed.</li> <li>Laying of 2520m of 160 PVC pipe has been done and the work has been completed.</li> <li>Laying of 212m of 500 DI pipe has been done and the work has been completed.</li> <li>Laying of 250m of 700 DI pipe has been done and the work has been done and the work has been completed.</li> </ul>

Sl. No.	Item	<b>Monthly Progress</b>	<b>Cumulative Progress</b>
		Laying of 86m 700D1     pipe has been done in this Month.	

Progress achieved up to 29<sup>th</sup> February 2020 in comparison with original programme as given above.

# **Financial Progress**

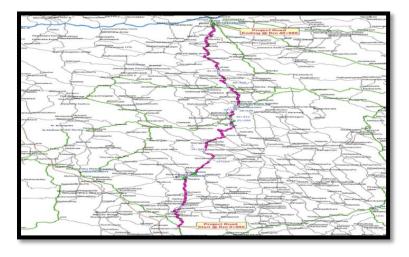
Up to previ	ous Month	Thi	s Month		upto end of this Ionth
Target	Achieved	Target	Achieved	Target	Achieved
100%	51.22%	*	5.02 %	100%	56.24%

<sup>\*</sup>Revised programme yet to be submitted by the Contractor.

# **Key Issues**

• Completion of water utility shifting has been delayed.

# 5.11 Package 5 – Ettamanoor- Muvattupuzha



Name of	Original date of	Contract Value in	Physical Progress	Financial Progres		
Conttractor	completion	Crores	in %	in %		
M/s.NAPC Ltd	03-08-2016	171.49	100%	100%		
EQT Date	DLP completion			Billed Amount		
EOT Date	date	TOC Issued date	Savings in Crores	made till date in Crores		

This work was completed including the DLP which ended on 25-02-2019. Closure report was resubmitted by CSC and is under review by PMC for further submission to World Bank for compliance.

# 5.12 Package 6 -Ponkunnam – Thodupuzha – SH 8

Punaloor - Ponkunnam and Ponkunnam - Thodupuzha stretches of SH 8 are the two stretches. Total road length is 132 kms.



Name of	Original date of	Contract Value in	Physical	Financial Progres in
Conttractor	completion	Crores	Progress in %	%
M/s.GHV-EKK				
Infrastructure & Co	09-12-2016	227.13	Completed	Completed
EOT Date	DLP completion date	Variation Order	Savings in Crores	Billed Amount made till
		Value in crores		date in Crores
28-03-2018	28-03-2019	NA	15.90	211.23

#### **Salient Features**

Scope of work (46.363 km)

Minor Bridge reconstruction - 1 no.

Culvert:

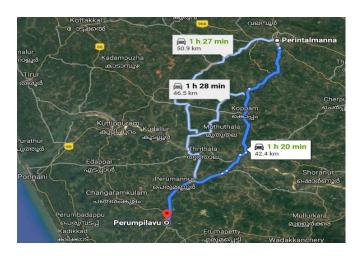
Reconstruction - 109 nos.
Widening - 44nos.
New Construction - 7 nos.
Drain - 65 km

Foot Path -

Solar Street Light

This work was completed including the DLP which ended on 28-03-2018. Closure report submitted by CSC was not inaccordance to Worl Bank requirement. The same is being re submitted.

## 5.13 Package 7 -Perimpilavu -Perinthalmanna



Name	of	Original date of	Contract Value in	Physical	Financial Progres in
Conttractor		completion	Crores	Progress in %	%
M/s constructions	Nath	02-03-2017	8.11	100 %	100 %
' I		Variation Order Value in crores	Savings in Crores	Billed Amount made till date in Crores	
NA		02-03-2018	NA	NIL	8.11

This work was completed including the DLP which ended on 02-03-2018. Closure report submitted by CSC was not inaccordance to World Bank requirements and hence needs to be re submitted with all data.

# **5.14 Component A 2:**

## 5.14.1 Upgradation of Road from Punalur to Ponkunnam (82.17 km)

The Component A 2 of the KSTP –II was proposed between Punalur and Ponkunnam road as PPP hybrid annuity mode. For this purpose, the KSTP had appointed a Transaction Advisor (TA) M/s L&T Infrastructure Engineering Ltd, Chennai to assist in designing the annuity concession.

Since the World Bank had not cleared the RFP documents to continue the PPP procurement, it was decided by the 97<sup>th</sup> Steering Committee to annul the PPP procurement process and adopt EPC mode due to time constraints and also to entrust the task of updating of design and DPR to the Transaction Advisor.

The Transaction Advisor M/s. LNTIEL has updated the DPR'S prepared earlier by M/s CDM Smith and also Tender Documents for these construction packages, the details of packages which are below.

Government of Kerala through Government of India is in the process of obtaining a loan from the International Bank for Reconstruction & Development as financial assistance for the construction cost of the KSTP-II, which aims at Upgrading Punalur to Ponkunnam road (SH 8) from Km 0+000 to Km 82+173 (Package 8A, Package 8B & Package 8C) of State Highway. The Construction Supervision and contract

administration of the contracts being procured under EPC modality in three packages is the subject of this Terms of Reference (ToR). In addition to the above, Government of Kerala has proposed for the rehabilitation of many roads under 'Rebuilt Kerala Initiatives'.

Works: The EPC Contract works in KSTP-II are procured/ being procured in 3 packages along with Three RKI Roads. These packages are as below:

Sl. No.	Category	Contract Package	Name of Work	Length (Km)	Construction Period	Maintena nce Period
		KSTPII/PMT/UG 8A	Punalur to Konni	29.840		
1.	Category A	KSTPII/PMT/UG 8B	Konni to Placherry	30.160	24 Months	
		KSTPII/PMT/UG 8C	Placherry to Ponkunnam	22.173		60 Months
	Category B	KSTP-II/PMT/RKI-	Adoor- Chengannur	23.23		
2		KSTP-II/PMT/RKI-3	Painavu-Thannikandom- Asoakkavala road	21.0	12 Months	
		KSTP-II/PMT/RKI-	Chemmannar Gap road	19.45		

The tender documents were uploaded in the Kerala Govt e tender Portal after obtaining No objection from World Bank and the proposals of the bids were received as per the table 2 below. Total 10 EPC bids were received combining all the packages and are currently under various stages of finalization and evaluation described in detail further in the chapter elsewhere.

Table 2

SI.No	Package	Stretch of	Type of Contract	Bid	Length	
	No	the Project		opening	(Km.)	Tendered Price
		Road		date		in Cr
1			Engineering			
	KSTP-	Punalur-	Procurement	12-04-19	29.84	226.61
	2/OL/8A	Konni	Construction (EPC)			
2			Engineering			
	KSTP-	Konni -	Procurement	19-03-19	30.16	274.24
	2/OL/8B	Placherry	Construction (EPC)			
3			Engineering			
	KSTP-	Placherry -	Procurement	27-03-19	22.17	236.79
	2/OL/8C	Ponkunnam	Construction (EPC)			

## 5.14.2 Package 8 B - Konni - Placherry

This road is proposed to be taken up as Package 8 B with a project length of 30.16 kms. The DPR for this was prepared by M/s LNTIEL with an estimated cost of 274.24 Crores. The Bid process was done under NCB, Single Stage, and Two-envelope Bidding Process using E-procurement.

Sl. No.	Name of Contractor	Nationality	Remarks
1	M/s. EKK Infrastructure Limited	Indian	Single Entity

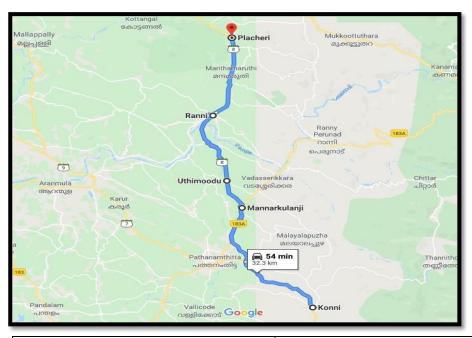
Upon evaluation of the technical bids, it was noticed that one of the Bidders M/s RDS Project Limited in JV with M/s Cherian Varkey Construction Co. Pvt. Ltd has provided BG no. 39670IGL0000619 dated 07/03/19 with validity up to 06/06/19 instead of 30/09/19, as per Clause 19.3 of Instruction to Bidders. Hence, Bid of M/s RDS Project Limited and M/s Cherian Varkey Construction Co. Pvt. Ltd. (Joint Venture) is treated as non-responsive, as per Clause 19.4 of Instruction to Bidders (Non-responsive).

The Technical Evaluation Report was approved by the World Bank on 27-05-2019 after which the financial Bid was to be opened on 21-06-2019. However, an appeal was received from M/s RDS Project Limited in JV with M/s Cherian Varkey Construction Co. Pvt. Ltd vide his "Writ Appeal" W.P.(C) No.12480 dated 20-06-2019 to keep the financial opening of Bid in abeyance till judgement date comes for consideration. The Writ Appeal filed by the bidder was rejected on 20.06.2019 by the court.

Financial Bid of M/s EKK Infrastructure Limited only was opened 21-06-2019 and the quoted amount of M/s EKK is Rs. 279.00 Crores against the estimated cost of Rs 274.24 crores which is 1.74% above the estimate amount. The quoted amount is acceptable since the estimate was prepared as per SOR for 2017-18 applicable as on February 2018.

Approval from World Bank was received for this Package 8 B work on 01-07-2019. LOI to M/s EKK Infrastructure Limited on 08-07-2019. On submission of the performance security Environmental, Social, Health and Safety (ESHS) performance security by the contractor in accordance with the bidding document, agreement was signed with the contractor on 22.08.2019. The duration of the construction works is 24 months with maintenance period of 5 Years. Initial preparatory work on this stretch has been commenced by the Contractor and work is in progress.

# 5.14.3 Package 8 B Status - Konni to Plachery



Project Name	Upgrading Punalur to Ponkunnam road (SH 8)) Package 8B: Km 29+840 (Konni) to Km 60+000 (Placherry)		
Length of the Road	30.160 Km		
Name of Contractor	M/s EKK Infrastructure Limited		
Type of Contract	Engineering, Procurement, Construction ("EPC")		
Agreement No & Date	22.08.2019		
Date of Award (LOA Date)	03.07.2019		
Appointed Date	06.09-2019		
Reappointed Date	01.11.2019		
Construction Period (in Days)	730		
Maintenance Period (in Months)	60		
Scheduled Date of Completion	29.10.2021		
Authority Engineer	Consulting Engineers Group Ltd, Jaipur		
AE Agreement Date	16-10-2019		
AE Mobilization Date	04-11-2019		
Chainage of the Project (in Km)	km 29.840 to 60.000		
Total Project Cost (in Cr)	279.00		

	Descript ion	Planned		Actua	al		
Project Milestone	(Days from Appoint ed Date)	Physical Progress (%)	Scheduled Date	Physical Progress (%)	Revised Date	Delay (No. of months)	Current Status
Milestone I	290	20%	15.08.2020	Nil			
Milestone II	440.	55%	12.01.2021				
Milestone III	585	75%	06.06.2021				
Scheduled Completion	730	100%	29.10.2021				

# **Physical Progress**

- TBM traversing completed, verified by AE.
- Centre line marking completed up to 51km. And 51 to 60 under progress.
- OGL recording completed up to 49km. And 51 to 60 under progress.
- Traffic survey, Axle load survey, FWD completed.
- Bore logs/ Geo technical investigation completed.
- Road Inventory highways in progress, completed up to 51km and further chainage marking under progress.
- Verification of Existing crust thickness completed.
- TCS Validation done at site.
- Structure inventory under progress
- Plan & Profile preparation under progress.
- Contractor not started Road works in this reporting month of **Feb-2020**.

Some of the details of the current work front available (As per Authority Engineer's Report) is as below

1. Work front			Length completed by layer (MCW)			Length completed by layer     (RCC drain and Foot path     cum Drain )		
	Length (km)	% Total Length		Length (km)	% Total Length		Length (km)	% Total Length
Total Length	30.160	100%	<b>Total Length</b>	30.160	100%	Total Length	19.70 BS	100%
Total Work front available	29.585	98.09%	Total Length Completed (Till Date)	Nil	Nil	Total Length Completed (Till Date)	Nil	Nil
Pending Land Acquisition	0.575	1.91%	ВС	Nil	Nil			
			DGBM	Nil	Nil			

Pending Clearances	WMM	Nil	Nil		
Encumbrance	GSB	Nil	Nil		
Forest Area	Sub-Grade	Nil	Nil		
	Embankment	Nil	Nil		

# Current issues and recommended actions by AE

- 1. The Contractor has submitted CESMP, the shortfalls are communicted to the contractor needs to resubmit C-ESMP with duly incorpating the shortfalls.
- 2. The Contractor has submitted QAP, the shortfalls are communicted to the contractor needs to resubmit QAP with duly incorpating the shortfalls.
- 3. The Contractor has submitted Taraffic Management Paln (TMP), the shortfalls are communicted to the contractor needs to resubmit TMP with duly incorpating the shortfalls.
- **4.** Land Acquisition in **575 Mts** length is to be carried out quickly so that this land can be handed over as per the schedule A provsion.
- **5.** The contraactor needs to expidate the approval of designs and drawings duly proof cheked and safety audeited, quickly, so that works can be commnece early
- **6.** The process for utility shifting needs to be expediciously so that works are not hindered for want of shifting of utilities.
- 7. Man power should be deployed as per the agreement still the key persons of the man power not deployed
- **8.** Applicable permits not submitted till date.

# 5.14.4 Package 8 C- Placherry to Ponkunnam

Three bids were received against this tender as per table below

SI. No.	Name of Bidder	Nationality	Whether technical bid opened/ not opened	Remarks
3	M/s Sreedhanya Construction Company and M/s Nath Infrastructures (Joint Venture)	Indian	Awarded	JV with M/s Sreedhanya Construction Company as lead member

After technical evaluation it is seen that Bidders of SI. No 1 and 2 shall be treated as non-responsive due to the conditions stated below as a and b respectively.

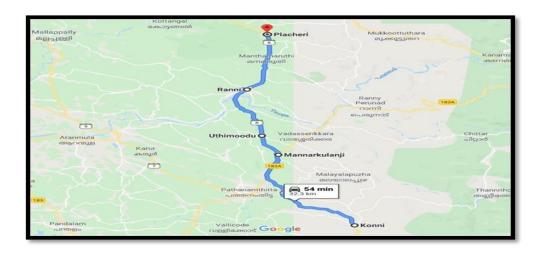
- a) M/s RDS Project Limited and M/s Cherian Varkey Construction Co. Pvt. Ltd. (Joint Venture) has provided BG no. 39670IGL0001019 dated 26/03/19 with validity upto25/06/19 instead of 8/10/19, as per Clause 19.3 of Instruction to Bidders. Hence, Bid of M/s RDS Project Limited and M/s Cherian Varkey Construction Co. Pvt. Ltd. (Joint Venture) shall be treated as non-responsive, as per Clause 19.4 of Instruction to Bidders (Non-responsive).
- b) Turnover requirement for M/s. EKK Infrastructure Limited is Rs. 520 Cr as per Clause 2.3.2 (Average Annual Construction Turnover) of Section III: Evaluation and Qualification Criteria of RFP, since M/s. EKK Infrastructure Limited is L1 for Packages 8B. But the average annual turnover of M/s. EKK Infrastructure

Limited is Rs. 287.52 Cr only. As per the letter received from M/s. EKK Infrastructure Limited vide letter no. EKK/TNDR/2019/330 dated 07/05/19; they are not eligible for Package 8C as in Package 8 B they are L1. So, bid of M/s. EKK Infrastructure Limited shall be rejected as per Clause 32.3 of Instruction to Bidders (Non-responsive)

Hence Price bid submitted by M/s Sreedhanya Construction Company and M/s Nath Infrastructures (Joint Venture) was considered for opening.

After receiving confirmation from WB to proceed with the award of Work for Package 8 B on 01-07-2019, the financial JV Bid of M/s Sreedhanya Construction Company and M/s Nath Infrastructures was opened and evaluated on 15-07-2019. The price quoted by this bidder was Rs 279.99 crores against the tendered cost of 236.79 crores. This being on the higher side, and with World Bank and Steering Committee concurrence, the Contractor was requested to review his quote with regards to GST and re submit. Accordingly, a revised Bid price of Rs 248.62, crores vide their letter to Chief Engineer KSTP dated 07-08-2019 was submitted by the Contractor. This offer was accepted by KSTP and LOI was issued to the Contractor on 13-08-2019. Due to Election and Moral Code of Conduct, the Agreement was signed with the Contractor on 24.09.19. Initial preparatory work on this stretch has been commenced by the Contractor and work is in progress.

# 5.14.5 Package 8 C Status - Plachery-PonKunnum



Project Name	Upgrading Punalur to Ponkunnam road (SH 8)) Package 8C: Km 60+000 (Plachery) to Km 82+170 (Ponkunnam)
Length of the Road	22.170 Km
Name of Contractor	M/s Sreedhanya Construction Company and M/s Nath Infrastructures
Type of Contract	Engineering, Procurement, Construction ("EPC")
Agreement No & Date	24.09.2019
Date of Award (LOA Date)	13.08.2019

Appointed Date	09.10-2019
Reappointed Date	23.12.2021
Construction Period (in Days)	730
Maintenance Period (in Months)	60
Scheduled Date of Completion	21.12.2021
Authority Engineer	Consulting Engineers Group Ltd, Jaipur
AE Agreement Date	16-10-2019
AE Mobilization Date	04-11-2019
Chainage of the Project (in Km)	km 60.000 to 82.173
Total Project Cost (in Cr)	248.630

	Description	Planned		Actual		Delay		
Project Milestone	(Days from Appointed Date)	Physical Progress (%)	Scheduled Date	Physical Progress (%)	Revised Date	(No. of months)	Current Status	Remarks
Milestone I	290	20%	07.10.2020	Nil				
Milestone II	440.	55%	06.03.2021					
Milestone III	585	75%	29.07.2021					
Scheduled Completion	730	100%	21.12.2021					

## **Physical Progress**

- TBM traversing completed, verified by AE.
- Centre line marking under progress.
- OGL Recording under progress.
- Traffic survey, Axle load survey, BBD completed.
- Bore logs/ Geo technical investigation under progress.
- Verification of Existing crust thickness completed.
- TCS Validation done at site.
- Verification of Existing crust thickness completed.
- Road Inventory highways in progress.
- Structure inventory completed.
- Plan & Profile preparation under progress.
- Contractor not started Road works in this reporting month of **Feb-2020**

Page 43 of 101

Some of the details of the current work front available (As per Authority Engineer's Report) is as below

1.Work front Unavailable & reason for Unavailability			2.Length completed by layer (MCW)			3.Length completed by layer (RCC drain and Foot path cum Drain )		
	Length (km)	% Total Length		Length (km)	% Total Length		Length (km)	% Total Length
Total Length	22.173	100%	Total Length	22.173	100%	<b>Total Length</b>	7.398 (BS)	100%
Total Work front available	22.173	100%	Total Length Completed (Till Date)	Nil	Nil	Total Length Completed (Till Date)	Nil	Nil
Pending Land Acquisition	Nil	Nil	ВС	Nil	Nil			
			DGBM	Nil	Nil			
Pending Clearances			WMM	Nil	Nil			
Encumbrance			GSB	Nil	Nil			
Forest Area			Sub-Grade	Nil	Nil			
			Embankment	Nil	Nil			

# Current issues and recommended actions by AE

- 1. The Contractor has submitted CESMP, the shortfalls are communicted to the contractor needs to resubmit C-ESMP with duly incorpating the shortfalls.
- 2. The Contractor has submitted Traffic Management Plan (TMP), the shortfalls are communicted to the contractor needs to resubmit TMP with duly incorpating the shortfalls.
- **3.** The contraactor needs to expidate the approval of designs and drawings duly proof cheked and safety audeited, quickly, so that works can be commnece early
- **4.** The process for utility shifting needs to be expediciously so that works are not hindered for want of shifting of utilities.
- **5.** Man power should be deployed as per the agreement.still the key persons of the man power not deployed.
- 6. Some of the Applicable permits is not yet submitted

## 5.14.6 Package 8 A Status

Five Bids were received for this package from Bidders as per table below

SI. No.	Name of Bidder	Nationality	Whether technical bid opened/ not opened	Remarks
1	M/s RDS Project Limited and M/s Cherian Varkey Construction Co. Pvt. Ltd. (Joint Venture)	Indian	Opened	JV with M/s RDS Project Limited as lead member
2	M/s. EKK Infrastructure Limited	Indian	Opened	Single Entity
3	M/s Sreedhanya Construction Company and M/s Rudranee Infrastructure Ltd. (Joint Venture)	Indian	Opened	JV with M/s Sreedhanya Construction Company as lead member
4	M/s Dinesh Chandra R. Agrawal Infracon Private Limited	Indian	Opened	Single Entity
5	M/s Ranjit Buildcon Limited	Indian	Opened	Single Entity

After technical evaluation of the bids received, it is concluded that

Turnover requirement for M/s. EKK Infrastructure Limited is Rs. 520 Cr as per Clause 2.3.2 (Average Annual Construction Turnover) of Section III: Evaluation and Qualification Criteria of RFP, since M/s. EKK Infrastructure Limited has awarded with Package 8B. But the average annual turnover of M/s. EKK Infrastructure Limited is Rs. 287.52 Cr only. As per the letter received from M/s. EKK Infrastructure Limited vide letter no. EKK/TNDR/2019/330 dated 07/05/19; they are not eligible for Package 8 C if Package 8 B is awarded to them. Hence, the bid of M/s. EKK Infrastructure Limited, shall be rejected as per Clause 32.3 of Instruction to Bidders as Non-responsive

While M/s. Sreedhanya Construction Company and M/s Nath Infrastructures (Joint Venture – 80%:20%) who are the only qualified bidders for Package 8 C and likely to be awarded this work. For Package 8 A, M/s. Sreedhanya Construction Company has submitted their bid along with M/s Rudranee Infrastructure Limited as Joint Venture (51%:49%), in which Sreedhanya Construction Company is the lead member. M/s. Sreedhanya being lead member for both packages, their eligibility criteria to meet the turnover requirement is 60% of aggregate turnover i.e., Rs. 282 Cr (60% of Rs. 470 Cr), whereas the turnover of M/s. Sreedhanya Construction Company is Rs. 96.48 Cr., hence they are not eligible for Package 8 A. So bid of M/s. Sreedhanya Construction Company and M/s Nath Infrastructures (Joint Venture) shall be rejected as per Clause 32.3 of Instruction to Bidders (Non-responsive)

Accordingly, the Evaluation Committee reviewed the technical bids and recommends financial bid opening of the remaining three bidders only I; e

1) M/s RDS Project Limited and M/s Cherian Varkey Construction Co. Pvt. Ltd. (Joint Venture)

- 2) M/s Dinesh Chandra R. Agrawal Infracon Private Limited and
- 3) M/s Ranjit Buildcon Limited as technically responsive for opening of their price bid

Accordingly, the Financial Bids of these three firms were opened and scrutinized.

The Bid Price quoted by M/s RDS Project Limited in JV with M/s Cherian Varkey Construction Co. Pvt. Ltd., was Rs 221.04 crores, M/s Dineshchandra R Agrawal Infracon Private Limited was Rs. 225.50 crores and Ranjit Buildcon Limited was Rs. 240.14 crores against the estimated price of 226.61 crores. The Final Evaluation report was submitted to World Bank recommending rejection of M/s RDS Project Limited in JV with M/s Cherian Varkey Construction Co. Pvt. Ltd. by stating the FIR filed against the company by Vigilance and Anti-Corruption Bureau on 21st August 2019. But World Bank vide the replied dated 27th August 2019 has informed that the Bank would not accept blacklisting/debarment based on State rules/procedures even if the case is concluded. As such the Bank returned the Final Evaluation Report to review the decision of The Evaluation Committee and to consider the offer of M/s RDS Project Limited in JV with M/s Cherian Varkey Construction Co. Pvt. Ltd.

The matter was placed before the Steering Committee on the 4th Of Septemeber 2019 and the steering committee decided to award the work to L2 - M/s Dinesh chandra .R. Agrawal Infracon Private Limited, using state share of KSTP since they are willing to take up the work at the quoted rate of L1 amounting to Rs.221.04crores. Since the Appeal has now shifted to Court, the decision from the Court is waited for further necessary action.

In addition to these three roads, the following three roads under Rebuild Kerala Initiative were taken up under Component A 2 and status is as below:

## 5.14.7 (1) Painavu Ashoka kavala Road Status

The bid invitation was published on 15.08.19 with the date of bid submission date as 17.09.19 which was extended up to 04.10.19. Only one bid received for this package from bidders, the details are as per below.

SI.No	Name of Bidder	Nationality	Remarks
1	M/s EKK Infrastructure Ltd.	Indian	Single Entity

On evaluation of the technical bids by the evaluation committee, the above Single bid received from M/s EKK Infrastructure limited were found responsive to the requirements of the bidding documents and were recommended to be invited for opening of their price bids for further evaluation. Accordingly, the Financial Bids of this one firm were opened on 25.10.19 and scrutinized. The Bid price quoted by M/s EKK Infrastructure Itd was Rs.95.40 Cr. The price quoted by the bidder is Rs.95.40 Cr against the estimated cost of Rs.86.82 Cr. This is 9.88% above the estimated amount. The evaluation report sent to Steering committee approval and the same has been approved by committee. LOA Issued to the contractor. The agreement signed on 24-01-2020 and construction period is 12 months from the appointed date.

## 5.14.8 (2) Adoor - Chengannur Road Status

The bid invitation was published on 15.08.19 with the date of bid submission date as 17.09.19 which was extended up to 04.10.19. Only one bid received for this package from bidders, the details are as per below.

SI.No	Name of Bidder	Nationality	Remarks
1	M/s EKK Infrastructure Ltd.	Indian	Single Entity

On evaluation of the technical bids by the evaluation committee, the above Single bid received from M/s EKK Infrastructure limited were found responsive to the requirements of the bidding documents and were recommended to be invited for opening of their price bids for further evaluation. Accordingly, the Financial Bids of these one firm were opened on 25.10.19 and scrutinized. The Bid price quoted by M/s EKK Infrastructure Itd was Rs.98.10 Cr. The price quoted by the bidder is Rs.98.10 Cr against the estimated cost of Rs.93.59 Cr. This is 4.82% above the estimated amount. The evaluation report was placed before Steering committee approval and the same has been approved by committee. LOA Issued to the contractor. The agreement signed on 24-01-2020 and construction period is 12 months from the appointed date.

#### 5.14.9 (3) Chemmanar Gap Road Status

The bids were called for the above project on 09.08.19 and pre bid meeting held on 26.08.19 and last date of submission of bids was 09.10.19. No bids received and called for retender on 10.10.19 and last date of bid submission is 11.11.19.

The following bids were received by closing date and time for submission of bids.

SI. No.	Name of Bidder (including list of all members in case of JV	Nationality	Lots (individual or combinations) for which considered technically responsive	Remarks
1	M/s. Cherian Varkey Construction Co. Pvt. Ltd.	Indian	Individual	

The Evaluation Committee reviewed the technical bid evaluation. Even though shortcomings exist as far as key personnel are concerned, considering the fact that this is a re-tender and that too a single response, this is being accepted. Now the Committee recommends M/s Cherian Varkey Construction Co. Pvt. Ltd. as technically responsive for opening of their price bid. After opening the financial bid, the contractors quote was 24.00 % higher than the estimate and hence committee recommended for re tendering. This has been retendered and bid opening date is on 13-03-2020.

# 5.14.10 Authority Engineers for Packages 8 A , B and C & Three RKI Roads

The RFP for appointing **Authority Engineers** for Packages 8 A, B and C are also uploaded and bids called for. In addition to these three roads, three additional roads from "Rebuild Kerala Initiative "(RKI) have also been added in the scope of works for the AE role. The additional three roads are complimented under **Component D** which is a newly added component under World Bank funding and are a part of the 59 roads identified by PWD under Rebuild Kerala lintiative. The details of these three PWD roads identified under "Rebuild Kerala Initiative "for Component D are as below as per Table 3

Table 3

Sr. No.	Name of road	District	Category of Road SH/MDR	Length of road Proposed in km	Estimated Cost in Crores
1	Chemmannar Gap road Km. 0/00 to 31/500 (except km. 10.650)	Idukki	MDR	29.94	120.98
2	Painavu Thannikandom Asoakkavala road	Idukki	SH	21.00	86.82
3	Adoor Chenganoor	Alappuzha Pattanamth		23.80	93.59
		74.74	301.39		

Bids for Authority Engineers were received on 17<sup>th</sup> July 2019 from the following Shortlisted Consultants who were given the RFP.

- 1. M/s Consulting Engineers Group Ltd.
- 2. M/s Egis India Consulting Engineer Pvt Ltd
- 3. M/s Infra Support Eng. Consultants Pvt Lt. In J.V. with iDECK Ltd
- 4. M/s SA Infrastructure Consultants Pvt Ltd in J.V. with Cos Consultancy Services
- 5. M/s Sai Consulting Engineers Private Limited, Ahmedabad, India.
- 6. SOWiL Limited in J.V., with Esteem Developers Pvt Ltd.

After technical evaluation, only three firms as below are considered responsive.

- 1. M/s Consulting Engineers Group Ltd.
- 2. M/s Egis India Consulting Engineer Pvt Ltd.
- 3. M/s Sai Consulting Engineers Private Limited, Ahmedabad, India.

The technical proposals were opened on 17.07.2019 at 16:30hours local time. The technical proposals were evaluated by the evaluation committee consisting of Secretary, PWD and Project Director KSTP and Chief Engineer, KSTP and the following scores are allotted.

Sl. No	Firm Name	Technical Scores
1	M/s.Consulting Engineers Group Ltd.	88.40
2	M/s.Sai Consulting Engineers Private Limited, Ahmedabad, India	83.92
3	M/s.Egis India Consulting Engineer Pvt. Ltd.	81.21
4	M/s.SA Infrastructure Consultants Pvt. Ltd. in J.V. with Cos Consultancy Services	66.19

The Evaluation Committee examined the Technical Proposals and decided that the following three firms are qualified for their financial proposal opening, who scored above 70 points. They are,

- 1. M/s. Consulting Engineers Group Ltd.
- 2. M/s. Sai Consulting Engineers Private Limited, Ahmedabad, India
- 3. M/s. Egis India Consulting Engineer Pvt. Ltd.

The financial proposal of M/s.SA Infrastructure Consultants Pvt. Ltd. in J.V. with Cos Consultancy Services was not opened as they had not obtained minimum qualifying 70 marks in their technical appraisal.

The detailed Technical Evaluation report was submitted to the World Bank for approval on 09/08/2019 and NOC received on 27.08.2019

Accordingly, the financial Bids of these three firms were opened on 29<sup>th</sup> August 2019 15.00 hours. The combined technical and financial Scores obtained are as tabulated below:

SI. No	Consultant's Name	Technical Scores	Financial Scores	Final Scores	Quoted Price (Exclusive of taxes) INR	Rank
1	M/s. Consulting Engineers Group Ltd.	88.40	88.61	88.45	12,28,46,400	1
2	M/s. Egis India Consulting Engineer Pvt. Ltd.	81.21	100	85.91	10,88,56,541	2
3	M/s. Sai Consulting Engineers Private Limited, Ahmedabad, India	83.92	73.50	81.31	14,80,9,7000	3

Steering Committee has given approval in their 108 MOM dated 17-09-2019 for awarding to M/s CEG Ltd and accordingly the agreement between KSTP and CEG Ltd was signed on the 16<sup>th</sup> of October 2019. The consultants were instructed to mobilise and commence their services as per Contract Agreement.

## 5.15 Component B: Road Safety Component

# The focus of Road Safety Program Comprises of the following tasks:

- a. To strengthen the capacity of Kerala Road Safety Authority and Road Safety Cell of PWD to introduce Sustainable International Best Practice in designing, implementing and Evaluation on Road Safety.
- b. Development of Safe Corridor Demonstration Project (SCDP) by implementing the Multisectoral interventions to demonstrate the effectiveness of Road Safety Best Practices. The Kazhakkoottam – Thaikod – Kottarakara – Adoor Corridor (80 km) improved during KSTP-I is identified for this purpose having high density of traffic. This work is in progress and is further detailed in following chapter under 16 further.
- c. Road Safety Capacity Building of the institutions responsible for managing Road Safety in the State.
- d. To replicate the lessons learned from the Safe Corridor Demonstration Project to develop another 10 safe corridors across the State through local partnerships using the challenge fund and the matching fund from the KRSA

KSTP appointed M/s VicRoads, Australia, an internationally experienced consultant to support in implementing the above programs. The consultant has conducted stake holders' meetings and trained the Engineers and others in designing various Road Safety interventions in the SCDP. The bid has been approved by the Steering Committee and the works awarded. The overlay works and Road Safety interventions are clubbed. Work commenced and in progress. The proposals for enhancing the existing facilities in the Kottarakara, Adoor, Kesavapuram and Government Medical Collage, Trivandrum are under consideration now.

The proposal for strengthening the Kerala Road Safety Authority has been accepted by the Executive Committee and the actions for procuring specialists, to various positions was complted. Appointment orders were issued by the Transport Department through a Government order and the incumbents have formed. The remuneration of the specialist for the project period is to be paid from the KSTP funds. The TSG is now examing the Challenge Fund proposals and co-ordinating activities of SCDP.

Traffic counters were procured and installed at five locations, one in NH and four in location in the project roads. These counters shall be utilized for planning of future road geometrics requirements, capacity analysis, seasonal variations, and daily variations of traffic volume during festivals etc.

KSTP has entrusted the consultant to take actions for the procurement of Market Research firms. The market research would support Development of the publicity and education programs, including future campaigns. Establishing benchmarks on knowledge, attitudes, perception of

road safety issues and self-reported behaviors of road users for monitoring the impact of future road safety activities and to effectively support the task of the Road Safety Capacity Building and Program Management Consultant. The activities completed.

The procurement of consultancy services for appointment of firms for Traffic Safety Enforcement and Post Crash Training (truuma care) for the Safe Corridor are in progress aimed at training the Police personnel and for enhancing trauma care facilities in Hospitals in the near by areas of the SCDP. These are expected to be completed by end August 2018.

The project proposals fixing the last date of submission on 13.11.2018 under the challenge fund program received from Kozhikode District has been tendered initiating bidding. This was agreed in a meeting held in the room of the Secretary to Government, Transport.

Since the progress of activities were slow, KSTP had earlier decided to terminate the services of M/s VicRoads, but as the consultant had further agreed to speed up the activities, revocation of the decision to terminate was reconsidered. This was revoked and the mobilization of key professionals continued. However, as their term of service is over, alternate arrangements are made through M/s NATPAC. NATPAC has submitted their report for Road Safety treatments (interventions) and are being implemented.

To validate the effectiveness of road safety improvements and under Component B, KSTP decided to implement a project exclusively as "Safe Corridor Demonstration Project" here in after referred as SCDP. The stretch selected was Khazakuttom- Adoor Section running a length of 78.65 kms. This work involved resurfacing of the pavement to acceptable standards with DBM /BC layers, drainage improvements, road markings, street lightings, crash barriers road studs, footpaths and many other safety related items. This work was scheduled to be completed by 2018. It includes a five-year maintenance period in the awarded Contract which will be ending in the year 2024 along with a Defects Libaility period of 1 year. This work is being executed under "Item Rate Contract" and is supervised by the SE Divisional Office.

# 5.15.1 Under Road Safety Capacity Building of the institutions responsible for managing Road Safety in the State

Kerala State Transport Project intends to develop post crash care, which includes both medical emergency services and crash victim extraction as a pilot initiative in the Safe corridor Demonstration Project from Kazhakoottam to Adoor stretch of MC road (80 km). For which, KSTP is developing the hospitals in the geographical proximity to the demonstration corridor as resourced trauma care facility and procuring ALS ambulances. The development of Level I and Level II hospital includes both infrastructure development and procurement equipments while in Level III hospital, only procurement of equipments is included. The Department of Health and

Family Welfare, Government of Kerala prepared the proposal of Strengthening Trauma Care Services as part of Safe Corridor Demonstration Project.

Accordingly, the proposal received through Health and Family Welfare as below is under implementation by KSTP.

SI. No	Name of the Institution	Infrastructure cost (in lakhs)	Additional Equipment cost (in lakh)	Total (Activity)
Equipme	ent			
Level I				
1	Govt. Medical College, Trivandrum	-	1877	18.77 Cr.
Level II	& Level III			
2	Taluk Headquarters Hospital, Kottarakara	25	168	
3	General Hospital, Adoor	25	418	]
4	Community Health Centre, Kanyakulangara	-	22.3	6.306 Cr.
5	Block Primary Health Centre Vamanapuram	-	22.3	
6	ALS Ambulances		63.9	63.9 lakhs
7	Comprehensive stroke Centre at Govt. Medical College, Thiruvananthapuram	200		
	Total	250		2.5 Cr.
Total Bu	<u> </u>	28.21. Cr.		

The proposal is taken up as four activities as follows and approved by World Bank.

- Strengthening Trauma Care Services in Level I and Level II hospitals along SCDP –
  Procurement of equipment like Ventilator, Centralized Medical Gas System, Anesthesia
  Work Station, CT Scan, Ultrasound with Colour Doppler, Flash Autoclave etc. -Rs 18.77
  Cr
- Upgradation of Emergency Trauma Care in Medical College, Thiruvananthapuram
   Procurement of equipment like Neuro Navigation System, CT Scanner, Operating microscope, High and Ultrasound, Surgical Instruments and 30 other medical equipment

   Rs 6.306Cr
- Procurement of Advanced Life Support Ambulances (2 nos.) equipped with multiple state
  of the art lifesaving equipment for General Hospital, Aoor and Taluk Head Quarters
  Hospital, Kottarakara Rs 63.9 Lakhs

 Strengthening Trauma Care Infrastructure (SCDP) – Developing Infrastructure for Comprehensive Trauma Care Centre at Govt. Medical College, Trivandrum, Trauma area modification at THQH, Kottarakara in the existing casualty at GH, Adoor–Rs.2.50 cr All the activities are coming under Post Review Threshold of World Bank.

The current status of the proposal is shown in the table below:

	Medical Equipments for Level I, II and III hospitals	Cost in Lakhs	Status as on March 10-03-2020
1	High end equipments	1487.81	<ul> <li>Bid opened on 28-10-2019 by KMSCL.</li> <li>Evaluation Completed and KMSCL submitted the evaluation report.</li> <li>1 item needed retender as not meeting criteria. KMSCL retendered the work. Opening on 23.03.2020</li> </ul>
2	Other items	292.52	<ul> <li>Bid opened on 16-10-19 by KMSCL.</li> <li>Evaluation Completed and KMSCL submitted the evaluation report.</li> <li>20 items got zero response. Retender required.</li> <li>KMSCL retenderd the work.</li> <li>Opening on 23.03.2020</li> </ul>
3	Procurement of ALS Ambulances	63.9	Entrusted KMSCL for procurement through GEM.

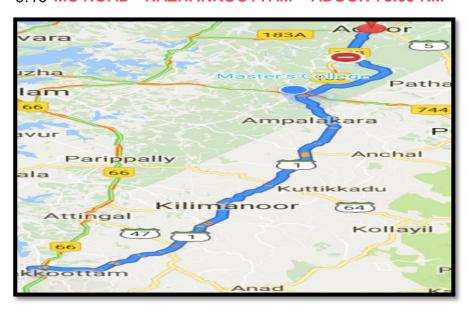
#### INFRASTRUCTURE:

SI No	Work	Estimate amount (L) excluding taxes	Status
1	Infrastructure development at Govt. Medical College, Thiruvananthapuram		
i	Civil Works-Providing False Ceiling and aluminium windows in the Trauma Care wards 7 & 8of Medical College Hospital	59.82	Agreement executed on 07.01.2020
	Electrical works		
ii	Providing AC in trauma care	38.44	<ul> <li>Tender opened on 18- 1019.Exorbitantly rate quoted.</li> <li>Retendered three times. No response</li> </ul>
iii	Electrification works of trauma care	48.42	Agreement executed on 07.01.2020
iv	Works related to Biomedical equipments	32.11	Entrusted KMSCL for procurement.
2	Infrastructure development of Taluk Headquarters Hospital Kottarakkara		

i	Civil Works	13.92	Bid opened on     1/1/2020.9% above rate     quoted.     LoA to be issued.
	Electrical works		
ii	Providing AC in trauma care	4.30	Agreement executed on 07.01.2020
iii	Electrification works of trauma care	3.20	Agreement executed on 07.01.2020.
3	Infrastructure development of General Hospital Adoor		
i	Civil Works	25.00	Agreement executed on 03.02.2020

- 1. Package 1 to 3 to be awarded by KMSCL after following their procedures.
- 2. The work Providing False Ceiling and aluminum windows in the Trauma Care wards 7 & 8 of Medical College Hospital, Thiruvananthapuram to be awarded to Sri. JABEER.U, the L1 bidder for an amount of Rs. 51,57,703/- excluding taxes.
- 3. The work Electrification in Trauma Care units Ward No 7 and 8 at MC Tvpm -Part-I-Strengthening of Existing Panel Boards to be awarded to DSK Electric Power, the L1 -bidder for an amount of Rs. 45,81,430/- excluding taxes.
- 4. The work Electrification of Trauma Care ICU and Oxygen Gas Plant at THQ- Hospital, Kottarakkara Part 1 Electrical work to be awarded to N Siva Prasad, the L1 –bidder for an amount of Rs3,18,775/- excluding taxes.
- 5. The work Electrification of Trauma Care ICU and Oxygen Gas Plant at THQ- Hospital, Kottarakkara Part II- SITC of 3 Tr Verticool Air Conditioner to be awarded to M/s Maxsel Agencies, the L1 -bidder for an amount of Rs. 4,16,792/- excluding taxes.

## 5.16 MC ROAD - KAZHAKKOOTTAM - ADOOR 78.65 KM



Project Name	KSTP-II – MC Road - Safe Corridor Demonstration Project – BC-Overlay & Road Safety Works from Kazhakoottam to Adoor (0/000 to 12/600 (Bye pass) and from 25/250 to 93/000)				
Name of Contractor	M/s GHV-EKK (JV), Second Floor, Municipal building, Perumbavoor, Ernakulam, Kerala				
Agreement No & Date	Agreement. No. 276/KSTP/PMT/PWD/2016 dated 05/12/2016				
Agreement No & Date	(Contract. No. KSTP/PMT/BCO&RS)				
<b>Date</b> of					
Commencement	28 <sup>th</sup> December 2016				
Time of Completion as per agreement	16 months from the date of commencement – 27.04.2018				
Extended Time of Completion	Up to 31.12.2019				
Contract Amount	Rs 146,67,38,745/-				
<b>Revised Project Cost</b>	Rs .137,88,30,271/-				

# 5.16.1 Financial Progress.

The payment of 113.21 Cr paid in month of February on basis of that, the Financial progress is 87.33 % as on 29-02-2020. The Contractor has submitted IPC- 25 & Bill Amount is Rs 115.99Cr. It is expected to close at around 138.23 crores after final completion.

	SCI	OP - PHY	SICAL PRO	GRESS O	F MAJOR C	IVIL WORK	S -FEBRU	ARY 2020	)
			Quantity						Remarks
SI No	Item	Unit	As per BoQ	As per variation	Anticipated Qty	Completed	Ongoing	Balance	
1	Drain	m	6274	14488	15100	14760	40	300	200 m drain at Venjaramoodu near mosque
	Culvert	No							
	New- Box		10	14	14	14	0	0	
2	Hume Pipe			1	1	1	0	0	
2	Widening			3	5	5	0	0	
	Minor Bridge			1	1	1	0	0	
	Total			19	21	21	0	0	
	Retaining Wall	m³							
3	R R		8847	1543	2847	2654	0	193	
	Gabion		0	6085	6085	5844	0	241	
4	DBM	m³	9524	9818	11100	10928	0	172	
5	BC	m³	39396	39396	42000	41700	0	300	
6	Interlocking blocks	m <sup>2</sup>	58988	16723	13707	12989	0	718	

	SCDP -	PHYSICAI	PROGRE	SS OF MA	JOR ROAD	SAFETY WO	ORKS - FEBRUARY	2020
SI No	ltem	Unit	As per BoQ	As per variation	Anticipated Qty	Completed	Balance	Remarks
1	Drain cover slab	$m^3$	7141	6791	8414	8248	166	
2	W Beam Crash barrier	m	15015	8295	9141	9019	122	
3	Road Marking	m <sup>2</sup>	81726	70523	57061	47126	9935	On going
4	Road Studs	Е	56437	56654	68950	63950	5000	On going
5	Sign Boards	Е	9873	9873	3931	2870	1061	On going
6	LED Solar Street light	Е	2000	1127	890	839	51	
7	Kerb 250 mm	m	211052	16747	31000	25662	5338	Ongoing at junctions
8	Kerb 100 mm	m	42211	46775	12500	11391	1109	Ongoing at junctions
9	Antifungal Designer Tile	m <sup>2</sup>	23610	68420	43000	42197	803	Ongoing at junctions
10	Hand Rail	m	21400	20900	19328	19125	203	Ongoing at junctions

## 5.16.2 Physical Status:

The Physical Progress is 93.92 % as on 29.02.2020. Due to delay in Junction drawing submission by NATPAC, improvements of junction works are delayed. As informed, four junction drawings are yet to be surveyed and drawings prepared by NATPAC out of 26 junctions in total. Also, additional loop of 0.5. Km has been proposed to be added (pothencode market area) to decongest the present one way traffic. The stretch from Vanjaramoodu to Kazakhootam asphalting was not considered in the original BOQ since surfacing was not due. However, this has become due now and is proposed to be done under this works contract as a variation item. Due to monsoon period from June to August, asphalting is not recommended and can be taken up after monsoons only.

Contractor has given application for EOT upto 31-12-2019 to complete all the balance works. The same has been finalized under the 110<sup>th</sup> Steering Committee approval on 20-12-2019.

## **5.16.3 Key Issues**

- ROW to be demarcated for Junction improvement works at pothenkode, and Venjaramood.
- SCDP- areas were evicted except dispute locations.
- Compensation for denial of Excise duty exemption due to Implementation of GST.

#### 5.17 Road safety Challenge Fund

In continuation with Safe corridor Development Project, and under 5.16 d, where in the lessons learnt from SCDP will further be replicated and additional 10 roads will be developed as safe corridors and funded under Component B.

Currently under the Road Challenge Fund, five roads as identified by KRSA (Kerala Road Safety Authority) vide letter No A2/283/KRSA/2018 Dated 08.03.2019 a field visit to all these roads was conducted by the PMC along with the Traffic Safety Group as desired by World Bank in their Minutes of Meeting held on 12th April 2019 to further reconform the adequacy of the proposals submitted and finalise the TOR for DPR's.

Three roads were visited on the 25th and 26th April 2019 and the balance two road visits were completed on 6th of May 2019. List of roads selected and their tentative costs are tabulated in Table 4 below.

Table 4

SI. No	Name of Road	Estimated Cost in Crores	Length in Kms	District
1	e-Yatra Project -corridor between Vypin-Mannambam	10.02	25.0	Ernakulam
2	Safe Road Project-Trivandrum Medical college -Kannamoola, Pallimukku-Pettah	7.50	5.0	Trivandrum
3	Safe Road Project-Trivandrum Vellayambalam-Thycaud Road Thampanoor	7.0	3.0	Trivandrum
4	Safe Road Project-Thrissur Thrissur- Kunnamkulam State Highway	4.0	24.3	Thrissur
5	Safe Corridor Project-Kollam-Kottiyam- Kundara Road	5.0	11.60	Kollam

The TOR received from TSG has been reviewed by PMC and is proposed for inviting DPR Consultants bids on QCBS policy of the World Bank.It was decided to issue RFP's to the already Shortlisted Consultants of KSTP for DPR of RKI roads and hence the RFP's were issued to the following Shortlisted Consultants

- 1. M/s Louis Berger Consulting Pvt Ltd
- 2. M/s Feedback Infra Pvt Ltd
- 3. M/s SATRA Infrastructure Management Services Pvt Ltd
- 4. M/s STUP Consultants Pvt Ltd
- 5. M/s Egis India Consulting Engineers Pvt Ltd
- 6. M/s L & T Infrastructure Engineering Ltd.
- 7. M/s Infrastructure Development Corporation Limited (iDECK)

A Pre Bid meeting was held on 01.08.2019 and the last date for submission of Bids is 27.08.2019.

Bids were received from the Follwing Consultants for Preparation of DPR for the Road safety chalange fund projects.

- M/s Feedback Infra Pvt Ltd
- 2. M/s STUP Consultants Pvt Ltd
- 3. M/s Egis India Consulting Engineers Pvt Ltd
- 4. M/s L & T Infrastructure Engineering Ltd.
- 5. M/s Infrastructure Development Corporation Limited (iDECK)

The technical proposals were opened on 27.08.2019 at 16:30hours local time.

It is noted that four (out of five) bidders have shown deliverance of desired services in four months period against three months period communicated vide pre-bid replies the bidders seem somewhat not very clear about the desired delivery period. As such, all five bids have been evaluated to avoid lone bid selection and during bid negotiation stage, if the most preferred (H1) bidder refuses to deliver the services in three months period, the bid shall be offered to the next preferred bidder, upon three months delivery period confirmation, till selection process completes.

Accordingly, technical proposals were evaluated by the evaluation committee consisting of the Secretary to Government PWD& Project Director KSTP and Chief Engineer, KSTP and the following technical scores are allotted.

1	M/s L & T Infra Engg Ltd	79.19
2	M/s EGIS India Consulting Engineers Pvt Ltd	74.98
3	M/s Feedback Infra Pvt Ltd	80.28
4	M/s STUP Consultants Pvt Ltd.	73.53
5	M/s Infrastructure Development Corporation (Karnataka) Ltd	72.89

Financial Bids were opened on 10<sup>th</sup> Oct-19.

Technical & Financial Evaluation of the Bids received for the Road safety chalange fund projects were completed and their combined scores are tabulated as below.

Sl. No	Consultant's Name	Technical Scores	Financial Scores	Final Scores	Rank
1	M/s EGIS India Consulting Engineers Pvt Ltd	74.98	100	85.38	1
2	M/s Feedback Infra Pvt Ltd	80.28	68.89	83.78	2
3	M/s L & T Infra Engg Ltd	79.19	61.60	81.38	3
4	M/s Infrastructure Development Corporation (Karnataka) Ltd	72.89	68.60	77.28	4
5	M/s STUP Consultants Pvt Ltd.	73.53	45.70	73.30	5

In this Circumstances, it is recommended to award the contract "Preparation of Detailed Project Report (DPR) for safe corridor projects in different regions of Kerala under the world bank assisted Challenge Fund of KSTP-II" to the H1 firm i.e. M/s EGIS India Consulting Engineers Pvt Ltd for an amount excluding tax for Rs. INR 58,95,795/-.

The matter placed before Steering committee for approval and the same has been approved by Steering committee in the 109<sup>th</sup> meeting. The agreement was signed on 2<sup>nd</sup> Dec-19.

The Consultants M/s EGIS India Pvt Ltd submitted the Inception Report on 24 -12-2019. It was reviewed and comments issued by PMC and Kerala Road Safety Authority which again was incorporated.

# Status of the project for month of February-20

- 1. Field investigation completed
  - a. Topographic survey for 25 major junctions.
  - b. Road Inventory survey
  - c. Turning Movement Count surveys for 25 major junctions.
  - d. Speed and Delay survey for all the five corridors.
  - e. Parking survey for all the five corridors.
  - f. LUX meter survey for all the five corridors.
  - g. Accident data for all the five corridors.
- 2. Strip Plan preparation completed for all the Five Corridors.
- 3. Improvement Proposals as per the scope of work completed for Two roads.
- 4. Field Study Report will be submitted on 05.03.2020
- 5. Draft DPR Will be submitted on or before 13.03.2020
- 6. Final DPR Upon approval of Draft DPR.

# 5.18 Component C: Institutional Strengthening Component - Current Status

#### 5.18.1 Road Sector Modernization

Under this Component, KSTP have already arranged and completed studies and DPR preparation for Road Rehabilitation Projects, Strategic Option Studies for improving MDRs (newly taken over from Panchyat), and Design of Green Building for KSTP and PWD Head Quarters, Review of IT system in PWD and other small studies with Bank's approval. The amount spent is Rs. 4.70 crore.

Further, KSTP has streamlined the activities under the Road Sector Modernization in the Institutional Strengthening component considering, the current priorities of the State, in lieu of Strategic Road Network Program which include:

Consultancy services for Institutional Strategy and Action Plan for Centre of Excellence for Kerala Road Sector across five identified Thematic areas.

# 5.18.2 Institutional Strategy and Action Plan for Centre/s of Excellence/s for Kerala Road Sector across five identified thematic areas (KSTP – II)

The study has been awarded to Deloitte Touché Tohmatsu India LLP in JV with Consulting Engineers Group Limited

The Contract Agreement was signed on 16th February 2019 and the Consultant's Team was mobilized on 1st March 2019

The Consultancy services shall be provided in two phases:

Phase I: Institutional Review and COE/s Conceptualization Phase	06 Months
Phase II: Implementation Support	12 Months

In between Phase I & II, a transition phase of 1-2 Months is expected for decision making/processing on COE by GoK.

Consultant have submitted the following reports.

#### 1) Inception Report

The Report covers the understanding of envisaged scope of work, the methodology for undertaking the specific activities under the engagement, the progress of preparatory work undertaken, and the way forward to successfully execute the assignment.

2) Report on Review of Sector Themes and Institutional Arrangement.

- 3) An assessment of existing knowledge and capabilities, the detailed processes that pertain to each of the themes, and the institutions that are involved in executing these processes have been captured.
- 4) Based on the study of the as-is processes and the ideal state scenario, gaps have been identified.
- 5) The need for the CoE(s) and the possible roles that the CoE(s) can play in each of the themes has been discussed.
- 6) Consultant has to submit the deliverables from S.No 3to 9 as per the time frame mentioned in the above table.

A review of the policies pertaining to Kerala PWD has been provided. Subsequently, a discussion on the institutional arrangements that exist in Kerala, that are carrying out functions pertaining to the five themes of this project has been provided

They were also asked to prepare a concept note on Core Road Network authority or State Highway Authority of Kerala (SHAK) and roadmap for planning & execution of climate resilient Road infrastructure as these are prior and post action points agreed to by the PWD as part of Programme under loan of Resilient Kerala Initiative (RKI). A presentation of the same was done by Deloitte Touché Tohmatsu India LLP in JV with Consulting Engineers Group Limited on 11<sup>th</sup> of Nov 2019. The proposal to implement their strategic plan is to be put up to GoK for approval as Maturity Level 1 inducting a Task Force.

## **5.18.3 Road Maintenance & Management Services**

Under the Institutional Strengthening Component C, a proposal to implement RMMS was considered

**Objective:** The overall objective of the proposal was to establish an enhanced and user friendly Web-based Road Information System and Road maintenance management system for the State PWD roads and to ensure that PWD is able to effectively plan and prioritize its road improvement and maintenance works and to prepare realistic proposals for budgetary allocations. This will improve the quality and delivery of PWD services in the maintenance of road networks. To implement this, it was decided to get the Detailed Project Report done through Central Road Research Institute (CSIR-CRRI) New Delhi.

The contract with CRRI was signed vide Contract No 305/KSTP/PMT/PWD/2019-20 Dated 19.06.2019. The entire task will be completed in 18 months.

Even though Kerala PWD have established a GIS based Road Information system and HDM-4 based Road Maintenance management System (RMMS) way back in 2007, the same could not be used as it was envisaged due to various reasons and are now outdated and redundant. Apart from this there were no established frame work and expertise in the Department to have a sustained data collection of the inventory and condition data of road assets in a systematic

manner. Hence, as part of the revival and up-gradation of the existing RMMS systems, the Department approached the Central Road Research Institute New Delhi to explore the possibility of setting-up a working Road Asset Information and Management System with an initial data collection of condition and inventory data for a selected road length using the advanced network survey vehicle of CRRI. Based on the detailed discussions and deliberations the CRRI has given a proposal for the setting-up a working RMMS for the Department with data collection of 4000 KM of selected roads using the network survey vehicle along with technical assistance for establishing related software requisites and trainings.

E-Governance wing of Kerala PWD has proposed to have an effective working **Web and GIS based** Road Information and Road Maintenance management System capable of delivering all required asset management information and analysis and outputs suitable for use in the Pavement Management Systems like HDM-4 thereby Public Works Department would be able to generate realistic road maintenance plans and budget. It is also envisaged that after establishing such a system in PWD, the concerned Field engineers of the Road Maintenance Wing and Engineers in charge of the Central RMMS unit would be trained in data collection and inputting, usage of the RMMS system and HDM-4 software so that the Department would be able to sustain and scale the RMMS system for all PWD roads in the State.

The procurement of this was hosted on E –portal of Kerala Governement as single stage Bid document 0n 19-10-2019 and subsequently a pre bid meeting was held on 5<sup>th</sup> Nov 2019. Queries were received from various prospective bidders and replies to these are currently being finalized. **The proposed submission date is on 30<sup>th</sup> Nov 2019 for which requests for extension have been sought.** This is under consideration and shall be communicated soon to the prospective bidders.

# 5.18.4 The RUSS has already been arranged. CPRSAP Technical Proposal are under evaluation.

■ Selection of consultant for Community Participatory Road Safety and User Engagement (CPRSAP) – Pre-proposal meeting was completed and clarification finalized. As per Bank's suggestion revised RFP was prepared incorporating the changes in length and other queries received in the pre-bid meeting over. The proposals are received. However the consultants do not possess any expereince in theis kind of assignments. Hence it was decided to get this type of activities through the community laiaison officer of PMT. It was proposed to appoint another CLO for this purpose and has been done.

## 5.18.5 Traffic Enforcement & Crash Data Management Sysytem

#### 5.18.5.1 Traffic Enforcement:

The Safe Demonstration Corridor Project (SCDP) from Vetturoad Junction near Kazhakoottam to Adoor on MC Road (SH1) is identified as high risk and high volume corridor for implementing the programme. It envisages a number of road safety interventions and counter-measures to reduce fatalities and injuries due to road crashes in "4E" concepts i.e., Engineering, Enforcement, Education and Emergency Trauma Care. The programme will implement multisectoral road safety initiatives by associating with other stake holding departments like Police, MVD, PWD and Health in establishing a sustainable road safety model which can be replicated elsewhere in the state with the view of achieving reduction in number and trauma severity of road crashes.

For developing an efficient Enforcement strategy, analysis of statistical data collected from the actual incidents recorded from each scene is inevitable. A reliable crash data is necessary for implementing target oriented multi-sectoral interventions. The information derived from the crash data analysis will enable a data led approach to Road safety Enforcement.

With the objective to reduce the road crash, KSTP has appointed an international consultant M/s TRL-JP Research JV to develop and implement an evidence based road safety enforcement strategies.

The consultant had reviewed various available reports such as iRAP study, baseline study conducted by NATPAC, seatbelt and helmet study by Vic Roads, overtaking study, etc. The consultant had also visited the police stations in the vicinity of the corridor to gather information of crash locations and profile of blackspot and vulnerable locations, road user category, enforcement programs, equipment's etc. Based on the baseline study and observation of current road use practices, an enforcement strategy plan was prepared by the consultant. For this purpose, a focus group discussion was held with the various stakeholders.

In order to manage and control traffic in the safest and most effective manner in the corridor through scientific application of systems and techniques, a two day training for 27 Police officers and 7 MVD officers as trainers from southern range was given by M/s TRL on 7th and 8th May at Police Training college Trivandrum and 2 day training for selected 151 Police officers and 21 officers from MV department respectively from 9 Police stations and 5 MVD offices having jurisdiction over the project area was given by TRL from 13th May to 18th June (9batches) at Jubilee Mandiram , Kottarakkara.

#### 5.18.6 Crash Data Management Sysytem:

For developing an efficient Enforcement strategy, analysis of statistical data collected from the actual incidents recorded from each scene is inevitable. A reliable crash data is necessary for implementing target oriented multi-secotral interventions. The information derived from the crash data analysis will enable a data led approach to Road safety Enforcement.

With the objective to reduce the road crash, KSTP has appointed M/s TRL to develop and implement an evidence based road safety enforcement strategies. The police department has

informed that as part of the outcomes related to Safe Corridor Demonstration Project, M/s TRL has provided two software licenses for the State Police to access the Crash Data Analysis and road safety management solution (iMAAP) for the 85km stretch from Kazhakoottam to Adoor. The crash data collected from the 9 police stations along the corridor has already been exported to the iMAAP. The crash data management system provided for SCDP has been deployed across the State of Himachal Pradesh for over 3 years now by TRL.

It is also informed by the Police department that, M/s TRL has offered unlimited license for multiple stakeholders in Kerala to access the software at an annual fee to the State Government (the SAAS model) and host the iMAAP solution on the Ministry of Electronics and Information Technology approved cloud server. The Police department would like to have a modern Road Accident Data Management System to enable robust data analysis and data-led and targeted interventions to reduce road accidents and improving road safety. For that, Police department has forwarded the details of iMAAP solution received form M/s TRL to consider under KSTP II. M/s TRL has offered a proposal for iMAAP cloud based solution on a Software-as-a-Service (SAAS) model which is having the key elements as follows.

- I. The iMAAP solution would be hosted on a Ministry of Electronics and Information Technology (MEITY) certified cloud server by TRL.
- II. The maintenance and upkeep of the software for the smooth functioning of software will be provided by TRL, along with any updates to the software.
- III. License and access to the product will be provided for up to 1000 users amongst authorized employees of the Government of Kerala subject to standard log-in credentials.

The SAAS package is being offered to the Government of Kerala at an Annual Subscription Fee. The expected fee, subjected to confirmation through our Techno-Commercial offer expected to be less than or equal to Rs 40 Lakhs per annum to the Government of Kerala.

Whether the proposal one year subscription may be considered as a variation to the existing contract of M/s TRL for Consulting Services for Traffic Management and Road Safety Enforcement Program on Safe Corridor Demonstration Project-Engaging Traffic and Road Safety Enforcement Specialists.

#### 5.19 Component D: Rebuil Kerala Initiative

KSTP has entrusted the Prioritization of the roads to be taken up under RKI to M/s LNTIEL, who are the Transaction Advisors for KSTP. Fifty nine roads were identified under the RKI component by the PWD Divisions based on the flood damage and severity.

The list of roads with rankings, districts and lengths are enclosed as Annexure II for reference. The total length of roads identified under RKI flood damge is approximately 1600 kms.

DPR for three roads are already completed and the roads are as under:

Sr.	Name of road	District	Category	Length of	<b>Estimated Cost</b>
No.			of Road SH/MD	road	in Crores
			R R	Proposed in km	
1	Chemmannar Gap road Km. 0/00	Idukki	MDR	29.94	120.98
	to 31/500 (except km. 10.650)				
2	Painavu Thannikandom	Idukki	SH	21.00	86.82
	Ashoak kavala road				
3	Adoor Changanoor	Alappuzha -Pattanamthita		23.80	93.59
					301.39

The balance fifty six roads are to be taken up for which DPR 's need to be prepared.

Under this component of funding, 300 kms of road length is proposed to be taken up under World Bank funding, while another 500 kms is being taken up under KfW bank funding.

RFP's for preparation of DPR's for these roads have been issued to the following consultants shortlisted.

- 1. M/s Louis Berger Consulting Pvt Ltd
- 2. M/s Feedback Infra Pvt Ltd
- 3. M/s SATRA Infrastructure Management Services Pvt Ltd
- 4. M/s STUP Consultants Pvt Ltd
- 5. M/s Egis India Consulting Engineers Pvt Ltd
- 6. M/s L & T Infrastructure Engineering Ltd.
- 7. M/s Infrastructure Development Corporation Limited (iDECK).

A total of four pacakes classified as Package 1, 2 3, and 4 are being taken up and the roads are as below Package wise. Bids were received for these four packages. It is proposed to award One Package only to One Consultant to ensure the DPR's are completed without delay.

The participation for these works by the Consultants is indicated in the Matrix table below.

# **RKI Roads Bid submitted by Consultants**

Consultant	Package-1	Package-2	Package-3	Package-4
Egis India Consulting Engineers Pvt Ltd	✓	✓	✓	✓
Feedback Infra Pvt Ltd	✓		✓	
Infrastructure Development Corporation Ltd iDECK	✓	✓	✓	✓
L&T Infrastructure Engineering Ltd	✓	✓	✓	✓
Louis Berger Consulting Pvt Ltd			✓	✓
STUP Consultants Pvt Ltd			✓	✓
Total	4	3	6	5

Package No	To be awarded Consultant's Name	Technical Scores	Financial Scores	Final Scores	Rank
1	M/s Feedback Infra P Ltd	76.55	78.37	76.91	H2
2	M/s L & T Infra Engg Ltd	81.01	49.22	74.65	H2
3	M/s Louis Berger Consulting P Ltd	90.57	53.99	83.25	H1
4	M/s EGIS India Consulting Engineers P Ltd	75.16	100	80.13	H1

Technical & Financial Evaluation of the Bids received for the RKI Roads were completed and their combined scores are tabulated as above.

As per the Bid condition, only one package to be awarded to one consultant. So, the Consultant participating in all packages and with highest score amongst them shall be awarded that package.

Accordingly, M/s Egis India Consulting Engineers Pvt Ltd being H 1 in three packages and scoring highest in Package 4 to be awarded for an amount of Rs 4,36,94,891 excluding taxes which is 46.46% below the estimated amount.

M/s Louis Berger Consulting Pvt Ltd being H 1 in Package 3 to be awarded Package 3 for an amount of Rs 8,09,26,163 excluding taxes which is 0.40% below the estimated amount.

M/s L&T Infrastructure Engineering Ltd being H 2 in Package 2 to be awarded Package 2 for an amount of Rs 5,99,56,500 excluding taxes which is 25.50% above the estimated amount as H1 is already awarded Package 4.

M/s Feedback Infra Pvt Ltd being H 2 in Package 1 to be awarded Package 1 for an amount of Rs 3,78,48,274 excluding taxes which is 21.31% below the estimated amount as H1 is already awarded Package 4.

The approval was given by steering Committee in the 108th MOM dated 17-09-2019.

Package -01, 02 & 03 Aggrement signed on 17.10.19 and Package-04 signed on 30.10.19.

# **Deliverables**

The study will come up with Detailed Project Report and Drawings for the redevelopment of road under item rate contract. The following will be the deliverables for the proposed assignment

- Submission of Inception Report within 15 days of receipt of work order.
- Submission of Survey and Investigation Report within 2 months of receipt of work order.

- Submission of pilot DPR (incl. ESIA and ESMP) and Bidding Documents for one road within
   months of receipt of work order.
- Submission of Draft DPR (incl. ESIA and ESMP) and Bidding Documents

   within 5 months of receipt of work order
- Submission of Final DPR (incl. ESIA and ESMP) and Bidding Documents Within 6months of receipt of work order.

The formal submissions will be reviewed and commented by KSPT together with PMC and KfW. Consultants shall in addition generally keep KSTP/PMC informed on and seek approvals for any specific design recommendations to be incorporated in the final detailed designs. KSTP shall also be informed immediately of any new data, factors or events which might significantly affect the viability or selection of a particular project road.

#### 5.19.1 RKI Package 2

**M/s LNTIEL** has submitted the Inception report as per delivarables schedule. It has been agreed to standardize the submissions of all the DPR's to avoid differences in implementation. PMC will be co ordinating withese Consultants and prepare a **DBR** (**Design Basis Report**) to World Bank and on further concurrence the same shall be communicated to the DPR consultants. Emphasis on Climate Resilient Roads incorporating Geo Tech and Hydrology in particular will be a crucial part of the reports to ensure durability and connectivity in severe conditions.

# **5.19.2 RKI Package 1**

**M/s Feedback Infra Pvt Ltd** has submitted the Inception report as per delivarables schedules and the same has been checked and comments given for necessary improvements.

#### 5.19.3 **RKI Package 3**

**M/s Louis Berger Consulting Pvt Ltd** has submitted the Inception report as per delivarables schedules and the same has been checked and comments given for necessary improvements.

# 5.19.4 RKI Package 4

**M/s Egis India Consulting Engineers Pvt Ltd** has submitted the Inception report as per delivarables schedules and the same has been checked and comments given for necessary improvements.

The Status of RKI roads mentioned below:

S No				Statu	s of RKI 4 Road	ls Upto Februa	ary-20						
Package No	Consultant's Name	Service Commencem ent Date	As Per Deliverables	Inception Report submitted Date	Revised Inception Report submitted Date	Submission of Survey and Investigation Report	Pilot DPR Submission	Draft DPR Submission	Final DPR	As Per Deliverables	Remarks		
1	M/s Feedback Infra P Ltd	01.11.19		15.11.2019	04.12.2019		Not Yet Submitted						
2	M/s L & T Infra Engg Ltd	01.11.19	Within 15 days		NOL TEL	Within 6 months of work order (30.04.2020)							
3	M/s Louis Berger Consulting P Ltd	01.11.19	of work order	15.11.2019	February		February	- 020)	Submitted	(30.0 1.2020)	Additional length has been added to package		
4	M/s EGIS India Consulting Engineers P Ltd			22.11.2019	18.02.20	13.01.2020	Not Yet Submitted	13.04.2020		13.05.2020	Additional Roads of 40km has been added to package		

## Roads under Package 1

Sr. No.	Agency	Name of road	District	Category of Road SH/MDR	Length of road Proposed in km
1		Kumbla- Badiadka-Mulleria road	Kasargod	MDR	29.55
2		Koyilandy Thamrassery Mukkam Areekode Edavanna	Kozhikode	SH -34	52.50
3	M/s FEEDBACK INFRA	Uruvachal Manakkayi valayal (including bridge parellel to aqueduct at valayal)- Keezhallur Therur Palayod- Vellaparamba Karimbala Colony Maruthaayi Road	Kannur		20.43
4		Edoor – Companynirath - Anapanthy - Angadikkadavu– Vaniyappara - Charal - Valavupara - Kacherikkadavu - Palathumkadav road in Peravoor constituency	Kannur	MDR	24.45
5		Vythiri-Tharuvana road	Wayanad	MDR	20.75
					147.68

Page **68** of 101

### Roads under Package 2

Sr. No	Agency	Name of road	District	Categor y of Road SH/MD R	Length of road Proposed in km	Actual Length as per Site
1		Quilandy - Edavanna road between Km 51/200 to 69/700 & Areekode - Manjeri road Km 0/000 to 13/600	Malappuram	SH/MD R	32.50	32.50
2	M/s LNTIEL	Perumbilavu-Nilambur Road B/W Km30/700 to 42/780 and 50/000 to 62/320 including upgradation of 53/000 to 54/000, 54/000 to 54/800 and 56/000 to 57/200.	Malappuram	SH	24.40	24.40
3	1 s/v		Palakkad	SH	36.80	36.80
4	2	Mananthavady - Vimalanagar - Kulathada - Valad HS - Periya road between km2/500 to 27/300 in Wayanad District	Wayanad	MDR	24.80	27.30
5		Thavalam Mully Road CH 0/000 to 28/800	Palakkad	MDR	28.80	28.80
					147.30	149.80

### Roads under Package 3

Sr. No.	DPR Consultan t	Name of roads/ Package No 3	District	Category of Road SH/MDR	Length of road Proposed in km as per TOR
1		Kodungallur- shornur SH (SH 22)	Thrissur	SH	34.00
2	g P Ltd	Thrissur Kuttippuram Road (SH 69) 4 stretches (Many stretches inbetween in progress by other agency KIIFB)	Thrissur	SH	29.98
3	ultin	Vazhakkodu Plazhy road Km.0/000 to 22/642	Thrissur	SH	22.642
4	Cons	Kakkadassery - Kaliyar road Ch. 0/000 to 20/000	Ernakula m	MDR	20.60
5	erger	Muvattupuzha - Theni SH (Ch. 0/000 to 15/750)	Ernakula m	SH	15.75
6	M/s Louis Berger Consulting P Ltd	Mookannoor Ezhattumugham Rd ch 0/000 to 14/200 and Blachippara Palissery Rd ch 0/000 to 6/000	Ernakula m	MDR	20.30
7	M/s	Kumarakom Nedumbassery (proposed SH) from Peruva to Peruvammuzhi	Ernakula m	MDR	21.03
8		Neyyassery Thokkumbansaddle road	Idukki	MDR	28.50
9		Nenmara - Nelliyampathy road km 0/00 to 30/714	Palakkad	MDR	30.71
					223.51

### Roads under Package 4

Sr. No.	Rankin g	Name of road	District	Categor y of Road SH/MD R	Length of road Propose d in km	Lengt h as per site
1		Mallapally, Komalam Paduthodu Kalloopara Chengaroor Komalam Kavungumprayar Pattakala, TMV road	Pathanamthitta	MDR	22.65	23.20
2	r LTD	Gandhinagar-Medical College- Babu Chazhikadan Road- Kottayam-Parippu Road- Athirampuzha Liessue- Kaippuzha-Mannanam- Pulikkuttissery-Parolickal- Muttappally Road	Kottayam	MDR	21.95	20.30
3	M/s EGIS INDIA PVT LTD	Pathanamthitta Ayroor- Muttukudukka illathupadi - Muttukudukka prakkanam - Parakkanam Elavumathitta - Kulanada Ramanchira - Thanikkuzhy Thonniamala	Pathanamthitta	MDR	28.12	28.20
	N/s					
4	_	Vadayar Chandappalam- Mulakkulam Road and Vadayar Kallattippalam Muttuchira Road	Kottayam	MDR	24.70	23.60
5		Malamekkara Kunnathukala Chala Puthenchanda factory Jn Azad Jn road 0/00 to 8/600	Pathanamthitta	MDR	8.60	7.90
6		Thiruvananthapuram Ponmudi road (From Nedumangad to Ponmudi)	Thiruvananthapura m	SH	41.00	38.50
	T			<u> </u>	147.02	141.70
7		Thattararnbalam-Michael Junction-Kochalummood- Mangankuzhy-Pandalam	Allapuzha		21.10	
8		Veeyapuram-Edathua- Puthukarry-Marnbuzhakkary- Kidangara-Kunnamgary- Kumarangary-Valady- Mullakarnthuruthy	Allapuzha		21.35	
		m . 11 - vr			42.45	40.00
		Total in Km			189.47	181.70

			Pi	roje	ect Roads under (RKI) Resilie	ent Kerala Ini	tiative (Annex	ure II)		
Sr. No.	Ranking	N	С	s	Name of road	District	Constituency	Category of Road SH/MDR	Length of road Proposed in km	Package No.
1	1	0	0	34	Thrikkunnappuzha - Nangiarkulangara- Thattarambalam- Michel Junction- Kochalummoodu- Mangankuzhy - Pandalam road	Alappuzha, Pathanamthitta	Haripad, Kayamkulam, Mavelikkara	MDR, SH	34.47	Pkg-IV
2	2				Kodungallur- shornur SH (SH 22)	Thrissur	Kodungallur,Irinj alakuda,Nattika,T hrissur	SH	34.00	Pkg-III
3	3	0	30	0	Thrissur Kuttippuram Road (SH 69)	Thrissur	Thrissur, Wadakkanchery, Manalur,Kunnam kulam,Ponnani &Thavanoor	SH	29.98	Pkg-III
4	4	30	0	0	Kumbla- badiadka-Mulleria road	Kasargod	Kasargod, Manjeswaram	MDR	29.55	Pkg-I
5	5	0	16	0	Muvattupuzha - Theni SH (Ch. 0/000 to 15/750)	Ernakulam	Mvattupuzha	SH	15.75	Pkg-III
6	6	0	0	24	Kuppappuram - Nedumudy - Karuvatta Road	Alappuzha	Kuttanad	MDR	24.45	Pkg-IV
7	7	0	0	23	Mallapally, Komalam Paduthodu Kalloopara Chengaroor Komalam Kavungumprayar Pattakala, TMV road	Pathanamthitta	Thiruvalla	MDR	22.65	Pkg-IV
8	8	0	0	22	Gandhinagar-Medical College-Babu Chazhikadan Road-Kottayam-Parippu Road-Athirampuzha Liessue- Kaippuzha-Mannanam-Pulikkuttissery- Parolickal-Muttappally Road	Kottayam	Ettumanoor	MDR	21.95	Pkg-IV

9	9	33	0	0	Quilandy - Edavanna road between Km 51/200 to 69/700 & Areekode - Manjeri road Km 0/000 to 13/600	Malappuram	Ernad, Malappuram, Manjeri	SH/MDR	32.50	Pkg-II
10	10	0	29	0	Neyyassery Thokkumbansaddle road	Idukki	Thodupuzha	MDR	28.50	Pkg-III
11	12				Cherthala Thekketheruvu road, Vallayil Chambakkadu Road, Kalavamkodam Shaktheeswaram road, Vayalar Olathala Kavil Valamangalam road, Valamangalam Kuthiyathodu Road, Old NH Kuthiyathodu	Alappuzha	Cherthala	MDR	20.55	
12	13	0	0	28	Pathanamthitta Ayroor-Muttukudukka illathupadi - Muttukudukka prakkanam - Parakkanam Elavumathitta - Kulanada Ramanchira - Thanikkuzhy Thonniamala	Pathanamthitta	Aranmula	MDR	28.115	Pkg-IV
13	14	0	26	5 C	Kanjiramattom Road (Ch.0/000 to 6/100), Kanjiramattom Poothotta Road(Ch.0/000 to 1/980, Poothotta Piravom Road (Ch.0/000 to 2/800), Arakunnam Amballoor Road(Ch.0/000 to 5/.030), Arakunnam Ollipuram Road (Ch.0/000 to1/950) Poothotta Piravom Road 2nd reach(Ch.2/600 to 4/250), Erathadam -Cherukara Ch.0/000 to 6/360)	Ernakulam	Piravom	MDR	25.87	Pkg-III
14	15	53	0	C	Koyilandy Thamrassery Mukkam Areekode Edavanna	Kozhikode	Koyilandy , Balussery, Koduvally, Thiruvambady,	SH -34	52.50	Pkg-I

15	17				Uruvachal Manakkayi valayal (including bridge parellel to aqueduct at valayal)-Keezhallur Therur Palayod-Vellaparamba Karimbala Colony Maruthaayi Road	Kannur	Mattannur		20.43	Pkg-I
16	18	0	20	0	Mookannoor ezhattumugham Rd ch 0/000 to 14/200 and Blachippara Palissery Rd ch 0/000 to 6/000	Ernakulam	Angamaly	MDR	20.30	Pkg-III
17	19	0	31	0	Nenmara - Nelliyampathy road km 0/00 to 30/714	Palakkad	Nenmara	MDR	30.71	Pkg-III
18	20	0	0	25	Harippad - Veeyapuram - Edathua - Puthukkary - Mampuzhakkary - Kidangara - Kunnamgari - Kumarangari - Valady - Mulakkamthuruthy Road	Alappuzha	Kuttanad	MDR	24.77	Pkg-IV
19	21	24	0	0	Edoor – Companynirath - Anapanthy - Angadikkadavu – Vaniyappara - Charal - Valavupara - Kacherikkadavu - Palathumkadav road in Peravoor constituency	Kannur	Peravoor	MDR	24.45	Pkg-I
20	22	0	0	25	Vadayar Chandappalam- Mulakkulam Road and Vadayar Kallattippalam Muttuchira Road	Kottayam	Vaikom & Kaduthuruthy	MDR	24.70	Pkg-IV
21	23				Oachira - Ayiramthengu - Vallikkavu - Vavvakkavu, Vallikkavu - Changankulangara, Vallikkavu- Alumkadavu	Kollam	Karunagapaly	MDR	20.00	
22	24	24	0	0	Perumbilavu-Nilambur Road B/W Km30/700 to 42/780 and 50/000 to 62/320 including upgradation of 53/000 to 54/000, 54/000 to 54/800 and 56/000 to 57/200.	Malappuram	Perinthalmanna	SH	24.40	Pkg-II

23	25	37	0	0	Palakkad -Perinthalmanna Road	Palakkad	Malampuzha, Kongad & Ottappalam	SH	36.80	Pkg-II
24	26	0	0	9	Malamekkara Kunnathukala Chala Puthenchanda factory Jn Azad Jn road 0/00 to 8/600	Pathanamthitta	Adoor	MDR	8.60	Pkg-IV
25	27				Alappuzha SL Puram road ,Mangalapuram Lutherance Ayyappanchery Road ,Kalikulam Muttathipparambu Road	Alappuzha	Cherthala	MDR	20.10	
26	28				Ramamangalam - Thodupuzha (Ch. 0/000 to 18/700) and Arakkuzha to Marika (Ch.0/000 to 3/400).	Ernakulam	Piravom	MDR	22.10	Pkg-III
27	29	21	0	0	Vythiri-Tharuvana road	Wayanad	Kalpetta	MDR	20.75	Pkg-I
28	30	0	21	0	Kumarakom Nedumbassery (proposed SH) from Peruva to Peruvammuzhi	Ernakulam	Piravom	MDR	21.03	Pkg-III
29	31	25	0	0	Mananthavady - Vimalanagar - Kulathada - Valad HS - Periya road between km2/500 to 27/300 in Wayanad District	Wayanad	Mananthavady	MDR	24.80	Pkg-II
30	32				Cherthala Arookutty Road from ch 0/000 to 24/590	Alappuzha	Cherthala	MDR	24.59	
31	33				0/500 ST road to Chenganda road Road connecting ST road to Chenganda via Varanad,3/1 SA road to muttom lake,Poothotta Nedumbrakkadu road,Chenganda Thrichattukulam road,Thrichattukulam Vaduthala road	Alappuzha	Cherthala	MDR	26.05	

32	34				Nedumangad - Puthenpalam - venjaramood	Thiruvanantha puram	Nedumagad, Vamanapuram	MDR	20.00	
33	35				Thodupuzha - Piravom road SH (Ch. 0000 to 33400).	Ernakulam, Idukki	Piravom, Thodupuzha, Muvattupuzha	SH	33.20	
34	36				Cherkkala - Jalsoor Road	Kasargod	Kasargod , Uduma	SH	38.95	
35	37				Thadiyampadu vimalagiri Santhigram road	Idukki	Idukki. Udumbanchola	MDR	21.00	
36	38	0	21	0	Kakkadassery - Kaliyar road Ch. 0/000 to 20/000	Ernakulam	Muvattupuzha	MDR	20.60	Pkg-III
37	39	0	23	0	Vazhakkodu Plazhy road Km.0/000 to 22/642	Thrissur	Chelakkara	SH	22.642	Pkg-III
38	40				Kunnam vahamukkku, Venkurinji Mukkottutara, Chathanthara Ring Road, Kollamula 70 Acre, Puthamon anthyalumkavu, Killiyonikal Kannanmukku, Thekkepuram Pamthalam Mukku, Poovanmala Varoor, Chakkapalam Kadamminatta, Dippopadi Chengaramukku, thulappally Kisumom, Puthukkada Chittar, Chethakkal Edamuri, Chethakkal Koothattukulam, Anchukuzhy Mukkam, Manoramamukku, Chengaramukku, Maramkulam Chennikkara, Alapra Alaparakkadu road.	Pathanamthitt	Konni		45.00	
39	41				Karimban Murikkassery Thopramkudy prakas Vettikkamattom road	Idukki	Idukki	SH	30.00	

40	42				Nagaroor - Karavaram link roads under Attingal LAC	Thiruvanantha puram	Attingal	MDR	26.40	
41	43				Payyavoor Kunnathurpadi Padankavala Kanjirakkolli Manakkadavu nuchyad road km 0/000 to 27/980	Kannur	Iriikur	MDR	27.98	
42	44				Kaithode - Poredam - Poonkkodu, Edakkodu - Vettuvazhy - Ganapathinada - Arkannoor	Kollam	Chadayamangala m	MDR	25.10	
43	46				Pulimath Kilimanoor Pazhayakummummel link roads under Attingal LAC	Thiruvanantha puram	Attingal	MDR	35.50	
44	48				Chandanappally-Konni Vattakavu- Njakkukavu-Jolly jn-Chappathu padi road	Pathnamthitta	Konni	MDR	21.50	
45	49				Kavungumpalam Naiplavu Chuvannaplavu paduva and Mundankunnu Todanal road	kottayam	puthuppally and Kanjirappally	MDR	25.00	
46	50	0	0	41	Thiruvananthapuram Ponmudi road (From Nedumangad to Ponmudi)	Thiruvanantha puram	Nedumangad, Aruvikkara & Vamanapuram	SH	41.00	Pkg-IV
47	51				Navaikulam - Pallikal Madavoor link roads under Varkala LAC	Thiruvanantha puram	Varkala	MDR	42.00	
48	52				Manjappara - Vayala - Kuttikkal - Pandalamukku - Chariparambu - Puthayam - Thottamukku - Filigri road	Kollam	Chadayamangala m	MDR	22.95	
49	53				Vandiperiyar- Moozhiyar Road	Idukki	Peermade	MDR	20.12	
50	54	29	0	0	Thavalam Mully Road CH 0/000 to 28/800	Palakkad	Mannarkkad	MDR	28.80	Pkg-II

51	55	Aravanchal Purakkunnu Kanayi nareekkamvalli Pilathara road km 0/000 to 21/000	Kannur	Payyanur	MDR	21.00	
52	56	Thazhamel - Anchal Market Jn. Sabarigiri School - Agasthyacode - Alencherry - Onthupacha road	Kollam	Punalpur & Chadayamangala m	MDR	25.22	
53	57	Kumaramputhur - Olippuzha road km. 0/000 - 19/390	Palakkad	Mannarkkad	MDR	19.39	
54	58	Vettikkavala - Sadananthapuram - Umannoor- Chepra - Nellikunnam - Veliyam - Kottarakkara	Kollam	Kottarakkar	MDR	37.32	
55	59	Enikkaara - Kallayam - Seemavila - Thekkada - Panavoor - Attukal - Panayamuttom - Perayam road	Thiruvanantha puram	Nedumagad, Vamanapuram	MDR	32.00	
				Total length in Km.	1478.08		
			Roads for wh	nich DPR's are complet	ted		
56	16	Chemmannar Gap road Km. 0/00 to 31/500 (except km. 10.650)	Idukki		MDR	20.00	
57	47	Painavu Thannikandom Asoakkavala road	Idukki		SH	20.80	
58	11	Adoor Chenganoor	Alappuzha - Pattanamthita		SH	23.80	
						64.60	
					1542.68		

# **6 Project Development Indicators - Results Framework**

SI.			_				CUMULATIVE	ACHIEVEMENT		END TARGET	SOURCE
NO.		INDICATORS	TINU	BASELINE		YR-1	YR-2	YR-3	YR-4		
1	2	3	4	5		6	7	8	9	10	11
Α		UPGRADATION									
	1	Direct Project Beneficiaries of which female	NOS.	13.4 million			1.1	13.90 million 7.10 million	14.15 million 7.35 million	14.80 million 7.7 million	CSC
				CAR							
				1. Kasaragod – Kanhangad road	19 45			Ch: 0-14 Car: 33%	Ch: 0.000 to 23.185 Time- 30'7"-31%		
	2	Reduction in Travel Time	MINUTES	2. Pilathara – Pappinissery road	21			Only very limited length done	Ch: 0+000 to 17+900 (3 stretch), 16+290 km Car-Time-19'13"- 10%		CSC
				3. Thalassery – Valavupara road	58				•		
				4. Chengannur – Ettumanoor road	95			Ch: 20-45 Car: 35%	Ch: 0.0-47.0 Car:78'0"-17.8%	Increase traffic	

SI.			_					CUMULATIVE A	CHIEVEMENT		END TARGET	SOURCE
NO.		INDICATORS	TINU		BASELINE		YR-1	YR-2	YR-3	YR-4		
1	2	3	4	,	5		6	7	8	9	10	11
				5. Ettum Muvat	nanoor – ttupuzha road	60			Car: 33%	Ch: 0 to 30 Car: 39'0"-35%		
				6. Thiruv	valla Bypass							
				7. Ponku Thodu	unnam – upuzha road	90			(37 km) Car: 20%	48 km Car 25%		

SI.			_					CUMULATIVE A	CHIEVEMENT		END TARGET	SOURCE
NO.		INDICATORS	UNIT		BASELINE		YR-1	YR-2	YR-3	YR-4		
1	2	3	4		5		6	7	8	9	10	11
				8.	Punalur – Ponkunnam road							
				9.	Perumpilavu – Perintalmanna road							
	3	Improved Riding Quality of Project Road	KM		No. of km with IRI < 4	363		20	68	224	340	CSC
					No. of fatalities/ year -	80					56	CSC
				1	Venerable - UG-1 Kasaragod – Kanhangad road (27+80)	49				6	34	
	4	Reduction in Annual Fatality (Details for the last 6 months. Fatal)		2	UG-2 Pilathara – Pappinissery road (20+900)					9		
		idot o montrio. Tatal)		3	UG-3A, 3B Thalassery – Valavupara road(54+000)		W	ork not progresse	ed for assessment			
				4	UG-4 Chengannur – Ettumanoor road (47+700)					13		

SI.			_					CUMULATIVE A	CHIEVEMENT		END TARGET	SOURCE
NO.		INDICATORS	UNIT		BASELINE		YR-1	YR-2	YR-3	YR-4		
1	2	3	4		5		6	7	8	9	10	11
				5	UG-5 Ettumanoor – Muvattupuzha road (40+960)					6		
COMF	PONE	NT -A - ROAD UP GRADA	ATION									
	5	State Highways upgraded			Km	-	-			216 km	340	CSC
	6	Financial closure achieved on PPP project			Y/N	-	-	-		N		
COMF	ONE	NT -B - ROAD SAFETY	•				•		-	•		-
	1	Pilot Safety Corridors Developed			Km improved	0	-	-		Work in progress	80	KSTP (work started)
	2	Number of District Level Road Safety Improvement Schemes implemented through challenge funds			Number	1	-	-	-	1	10	Road Safety Consultant
COMF	PONE	NT -C - INSTITUTIONAL S	STRENG	THE	NING							
	1	Modernization of PWD			Y/N	No	Review of existing IT system undertaken and recommendations adopted			Decided to take up other assignments under this program and arrangements are in progressEstablishing Centre of Excellence in Road Safety and Asset Management		KSTP CoE in place
	2	Functioning Road Asset Management System			Y/N	No	-	-		-	Annul Maintenance Plans disclosed	PWD reports

SI.			_				<b>CUMULATIVE A</b>	CHIEVEMENT		END TARGET	SOURCE
NO.		INDICATORS	TINU	BASELINE		YR-1	YR-2	YR-3	YR-4		
1	2	3	4	5		6	7	8	9	10	11
	3	Communications Strategy and Interfaces for Public Engagement Implemented		Y/N	No		PI Cell functioning		-PIMS being arranged -Community Participatory Road Safety & Asset Safeguard Program	At least 2 consultants/ stakeholder forums held	PWD/ KSTP
	4.	Regular Road User Surveys conducted		Y/N		Baseline survey under taken			Mid-term survey conducted	Final survey under progress	KSTP

### 7 Social Safeguard

Acquisition of 121.5 Ha of land for upgradation of 7 roads covering 322 km which affected 20696 households including titleholders and non-titleholders. As per R&R policy of KSTP, entitlements of all PAPs have been disbursed as part of pre-construction activities linked with land acquisition, rehabilitation and resettlement. As construction works started, 61 missing properties were identified in different packages most of which is required to link the two new bridges at Eranholi and Iritty. Action is being taken for acquisition of those properties under LA process and through negotiated purchase and rehabilitation of the affected PAPs.

#### 7.1 Land Acquisition Status (LA) pending issues to be resolved

### 7.1.1 Package UG-III-A – Thalassery - Kalarode road:

	Chainages where LA	of the road required	The officer at	Date since		How much land area
SI. No.	From	То	whose level case is pending	when such case is pending	Targeted date of finalization	is to be acquired (Ha)
1.	2.950	3.230	KSTP Kannur and LA Tahsildar, LAO Thalassery	Nov 2017	SIA conducted. Experts' review completed. Award by 31.06.2019	0.7100

### 7.1.2 Package UG-III-B – Kalarode – Valavupara road:

	of the road required	The officer at whose level	Date since when such	Targeted date of	How much land
From	То	case is pending	case is pending	finalization	area is to be acquired (Ha)
42.300	42.660	KSTP Kannur & LAO, Thalassery	Oct 2017	SIA conducted Experts' review completed. Valuation in progress. Award by 31.12.2018	0.5500
Total					0.5500

### 7.1.3 Package UG-IVA – Thiruvalla Bypass road:

SI.		where LA required		Date since	Targeted date	How much land area	
No.	From	То	case is pending	when such case is pending	Targeted date of finalization	is to be acquired (Ha)	
1.	1.588	1.680	LAO Ranni & KSTP Muvattupuzha	June 2016	31.12.2018	0.2703	

#### 7.2 Tree Cutting

Total number of trees to be cut combining the Packages VIII A, B and C is 4000 Numbers and currently 95 % of these are cut.

#### 7.3 Management of Construction induced Issues

Grievance Redressal Committees (GRC) constituted at the district level is functioning effectively under the Chairmanship of the District Collector. All grievances that cannot be resolved locally or at the site are referred to the GRC which meets once a month making effective decisions followed by actions in the field. Loss of access, protection of wells and houses abutting the road, retaining walls to prevent land slide, prevention of water logging and provision of drainage are the most common issues during construction phase. These are included in the BOQ and in PAP works for implementation. Those issues concerning land value or higher compensation are referred to the State level Committee.

# **8 Grievance Management Report**

(1st Jan 2013 – 30th April 2018) \*

SI.		Total no. of petetions	Total No. of cases settled	
No	Nature of Grievance	01.01.2013 to 30.04.2018	30.04.2018	Remarks
1	2	3	4	5
1	Land Acquisition/ Alignment change	13	13	10 settled through participatory interaction between KSTP officials and PAPs. Three cases were settled by the High Court.
2	Inadequate compensation of land/ Category change of the land	4	4	Category changes effected after re- examination by the Revenue authorities and payments made accordingly.
3	LAR Cases	323	312	11 Cases pending in the Sub Courts
4	Variation in the extent of land	12	12	Resurvey done in all cases and 2 were compensated by enhanced award.
5	Acquisition of missed structure/ Part/Full	12	12	Valuation of 12 missed out structures taken and compensation paid.
6	Inadequate compensation for structure	3	3	Rechecked the valuation at site in the presence of the PAP and convinced the veracity.
7	Provision of retaining wall to protect structure	144	144	Retaining wall provided to protect structures/ properties.
8	Protection of well	83	83	All wells have been protected by diverting drains and by providing concrete slabs/covers/ side walls as required at each site.
9	Conversion of part valuation of structure to full or vice versa	4	4	Changes effected as requested by the PAP and payment released
10	Inadequacy of R&R assistance	201	201	All cases settled in GRC and payment released.
11	Extension of time limit for demolition	12	12	Stay vacated and all structures demolished
12	Restoration of access to property	523	5965	Total number of access restored is 5965 including 523 who precented their griecance on the subject.
13	Providing new access	45	45	Provided access to all
14	Water logging issues	44	44	All cases settled
15	Drainage	156	156	All cases settled
16	Encroachment by contractor	18	18	Encroachment evicted and sites cleared restoring the condition as before
17	Damage to adjacent property	83	83	Damages in all 83 cases repaired and rectified
18	Shifting Transformer	1	1	Resettled
19	Non-payment of compensation	25	7	G.O. withdrawn and settled the issue
20	Reconstruction of cross drainage	10	10	Provided cross drainage in all 10 cases

<sup>\*</sup>Data from 1st May 2018 to August 31st 2019 is being sought from division offices and will be updated shortly.

#### 8.1 Compliance of Mission Recommendation

#### 8.1.1 Responsibilities of Sociologist in the Division

The role and responsibilities of sociologist in division is to implement resettlement action plan (RAP) — ensuring that affected person/family gets right information about land acquisition, process and procedures, compensation details and date of payment, persons responsible for grievance redress and counselling when rehabilitation required. S/he should ensure that PAP gets all entitlements/benefits in due time and without delay, refer all grievances to the Grievance Redressal Committee (GRC) and see that those are brought to the notice of the GRC within 15 days and resolved in one month. Disbursement should be made in each village and not in the KSTP office. If any payment pending analyse factors preventing and search for solutions and report facts and figures to EE and PMT. Regarding pending land acquisition, sociologist should function as a strategic planner, advise EE on the nature and process of different types of acquisition and monitoring; suggest measures in the form of notes, to speed up. If there is lack of knowledge, get it through reading and consultations with the right persons. Case studies of each affected individual/family complete with socio-demographic and economic backgrounds should be readily available and presented when called for.

Wherever construction is in progress, the sociologist must focus his/her attention on mitigation of construction induced negative impacts. Identification and reporting of loss of access from road to homes, establishments and properties, dangerous excavations without protective measures and barricades, threat or damage to adjacent properties, encroachment by contractor, waste dump in adjacent land, threat to buildings and wells and other utilities (water, electricity, telecom & cable services requiring protection from damages, prevention of flooding, water logging in front of habitations and establishments, and any activity that can cause harm to human beings and animals. Should ensure that no excavation or demolition done without reasonable advance notice and without providing temporary measures to provide access. Temporary measures should be replaced by permanent solution within a couple of weeks or at least in one month. Daily and weekly reports in writing should be given to the appropriate forum for necessary action based on the urgency.

A third angle of sociologist's responsibility is to monitor the welfare of the workers in camps and worksite. Living conditions in the camp should be hygienic, working conditions secure, with proper gears and tools, availability of toilets and safe drinking water at work site. If anything is lacking it should be brought to the EE immediately and to PMT in the monthly report.

Responsibilities remain incomplete without monthly reporting which should be comprehensive and regular. The report and case studies should be substantiated well with the details of subject matter with date and time of each activity spliced with relevant photos. The project is time bound. Action Plan should specify dates for each of the activities. The statement commonly used, such

as, "Action being taken or attended to" does not mean anything. It should be specific, what activity will start and when – it should begin on a day and end on a particular date. The proforma for social audit circulated a month ago must be completed and returned to PMT for analysis and final reporting before taking over roads from contractors. It should include all mitigation measures done at site for each PAP. Hence verification at site is necessary.

### 8.2 Payment to the consultants and Contractors as on end of February 2020:

SI. No	Firm/Organisation	Works Services	Amount in INR
1	M/s Egis India JV -	CSC For Packages I, II, III A, III B, Iv A, IV B, V,	52,13,95,292 /-
2	M/s MSV International	CSC for Package VI	4,67,41,766 /-
3	M/s VicRoads		11,07,89,698 /-
4	M/s L&T Ramboll	Transaction Advisors	4,17,79,780 /-
5	M/s Eptisa Servicious De Ingeneiria	PMC for KSTP-II Project	1,39,23,311 /-

#### **Contractors**

Sl. No	Name of Contractor	Project/Pkg No	Amount in INR
1	M/s.RDS Projects Limited	Kasargod-kanhangad-SH-57 KSTP-2/UG/1	1,22,09,94,120 /-
2	M/s.RDS Projects Limited	Pilathara-Pappinssery-SH-67 KSTP-2/UG/2	101,24,00,325 /-
3	M/s.Dinesh chandra R. Agarwal Pvt.Ltd.,	Thalassery-Kalaroad-SH-30 KSTP-2/UG/3A	92,32,54,551 /-
4	M/s.GHV-EKK Infrastructure & Co.	Kalaroad-Valavupara-SH-30 KSTP-2/UG/3B	1,78,11,80,259 /-
5	M/s.GHV-EKK Infrastructure & Co.	Thiruvalla by pass KSTP-2/UG/4A	10,57,61,001 /-
6	M/s.EKK Infrastructure Ltd.,	Thiruvalla town KSTP-2/UG/4B	4,37,35,994/-
7	M/s.GHV-EKK Infrastructure & Co.	Kazhakuttom-Adoor KSTP-2/OL/8	113,20,92,702 /-

# **9 Compliance Governance Improvement Action Plan**

## 9.1 (Micro level implementation willbedone with help of PMC)

1. Take Swift Punitive Action		
Blacklist relevant companies and	:	Will be done on receipt of evidence
terminate officials per government rules		
have engaged in misconduct		
Address any performance issues among	:	Will be addressed
PMT officials and consultants		
2. Address outstanding contractor Related Matter	s	
Clear the backlog of payments and		Cleared except disputed variation in Package VI
variation order requests		
Follow-up on quality issues and conduct	:	Being followed up. Arrangement for verification of all
tests where relevant		newly constructed bridges done
Exercise where warranted contractual	:	This will be exercised when required
remedies vis-à-vis contractors, design and		
supervision consultants		
3. Build a New Foundation		
Develop an action plan to strengthen	:	All managerial positions filled
integrity risk management w/oversight by		
stable management team		
Clearly delineate PWD's role (also make)	:	This will be done. Already directions towards PWD role
the KSTP the incubator of new		is given
approaches)		
Augment as required the PMT staffing	:	i. Project Management Consultant being engaged –
		bidding in progress
		ii. Probity Advisor being posted
		iii. Community liaison officer being posted
Communicate GoK's zero tolerance vis-	:	This will be done
Communicate GoK's zero tolerance vis- avis PMT and PWD officials as well as	:	This will be done

## 9.2 Key controls as part of the Action Plan:

A. Approval of variation orders and payments		
Reduce the number of officials involved in	:	This was done
assessing and signing off on IPCs and		
variation orders		
"Force" contractors and supervision	:	Orders issued
consultants to explicitly certify compliance		
with contractual obligations		

	•			l ==
		Revise the Financial Management manual	:	This is being done
ı		to detail the process and individual		
		accountabilities		
-	•	Consolidate in a decision memo to the		
	•		•	This is helder a second
		Project Director the view of engineers and		This is being arranged
		finance staff		
	•	Establish a service standard for the	:	This is already in place
		timeliness of approvals		
	•	Don't allow consultants and contractors to	:	This will be followed strictly
		take advantage of savings by adding what		-
		is not truly needed		
_				AACH I
	•	Update regularly an "exception report"	:	Will be done
		with all outstanding payment requests and		
		variation orders; identified quality issues;		
		planned and how tests; unavailability of		
		machinery and of PMT, SC and contractor		
		staff; any shortfall in PMT liquidity		
		compared to received and expected		
		payment before next tranche; and revised		
		cost estimate compared to the contract		
		price and original estimate		
	B. P	Procurement of Goods, Works and Services		
	•	Undertake a market survey of road	:	This is being arranged through experts being mobilized
		contractors to improve competition and		– bidding is on
		reduce collusion risks		
	•	Develop more precise cost estimate so	:	This will be done
		you can gauge if collusion risks are		
		elevated		
				This is hair a incists of
	•	Require independent bid certificates	ŀ	This is being insisted
	•	Institute a code of conduct for PMT and	:	Will be instituted
		PWD officials re-reporting of misconduct,		
		conflicts of interest etc.,		
	•	Apply an integrity due diligence checklist	:	This will be followed
		to spot in bids red flags of fraud, collusion		
		and unbalanced bidding		
<u> </u>	<u> </u>			
	<i>C.</i> Q	Quality Assurance	1	T
	•	Operationalize the committee recently	:	The committee chaired by the Chief Engineer, KSTP is
		constituted to review compliance with		reviewing the quality of works periodically
		quality control		
-	•	Create a quality assurance protocol with	:	This has been developed and passed on to the field
- 1		clear escalation mechanism with specific		Engineers. Quality audit as per the Quality Assurance
		The state of the s	1	1 0
		focus on structural/ bridge works		protocol is underway

	Organize monthly review meetings and quality clinics and discuss the exception report and assess compliance	:	This is arranged
	Make full use of the existing IT based quality assurance system to enhance system to enhance transparency on quality assurance system	:	Quality Specialists position is included in the PMC. This will be developed with the help of PMC
	Manage carefully integrity risks associated with failed tests	:	Non conformance are recorded and re-tests arranged after rectification
[	D. Performance Management		
	Develop a scorecard to track the quality, timeliness, and price of the PMT's work, and make it public –significant fraud and corruption always impact these indicators	:	This is being arranged

#### **10 ACCIDENT REPORT**

World Bank expressed the necessasity to analyse the accident database with respect to the data base before upgradation of these roads. CSC has been instructed to collect the data from Police stations for these roads before implementing the upgradation and compare this with the same after the roads are opened for road users.

Monthly accident report for the Period of February-2020 is as below for Package III A and III B . Since work is going on in the Packages IV A and IV B, no accident data is provided as of now. However, after completion of these two roads and allowing the road users, the past and present data shall be collected and analysed.

#### 10.1 Accident Report Pkg-3A

				Anne	x 5.18 <i>A</i>	ccident	Data Fo	r 1 FEBR	UARY - 2	2020 to	29 - FEBR	UARY -	2020						
Project					KST	P IIIA (1	Thalasser	y (km 01	+200) to	Kalarod	e (km 30+0	00)-SH-	-30						
			A	В	С	D	Е	F	G	Н			No of affect	ted persons	1				
S.NO	Operational Date	Time of Accident	Accident Location	Nature of Accident	Classifatio n of Accident	Causes	Road Feature	Road condition	Intersection n Type And Control	Weather Condition	Vehicle Responsible	Fatal	Grievous	Minor	Non injured	No of animals Killed of Any	Help Provided by Ambulance/P atroling	Remarks	
1	3-Feb-20	7.15 PM	Nirmalagiri	8 (Auto hit toMedian)	2	4	2	2	-	1	Auto	-	1	-	-	-	-	-	
2	10-Feb-20	7.45 PM	Meruvambai	8 (Van hit pedestrian and car)	1	4	2	2	-	1	Van	1	-	-	-	-		-	
3	18-Feb-20	8.30 AM	Paral Petrol Pump	3	2	4	2	1	-	1	Bolero hit Auto	•	-	-	-	-	-		
4	25-Feb-20	4.12 AM	Moonampeedi ka	8 (Vehicle hit Electric Post)	4	4	2	1	-	1	Unknown	-	-	-	-	-	-	-	
	٨	Hrhan/Dural	Land datails of su	irronding land use						E	1-Single lane, 2-Two lane, 3-Three Lanes or more without central divider(Median), 4- Four Lanes or mo								
											with central divider(Median)								
				ollision, 3-Rear End Collisi Turn Collision, 8-Others(I		n Brush/Side	Wipe, 5- Righ	nt Turn	F 1-Straight road, 2-Slight curve, 3-Sharp curve, 4- Flat road, 5-Gentle incline, 6-Steep incline, 7- Hur Dip 9) T/Y Junction								7- Hump, 8-		
	C 1 Fatal, 2-Grievious injury ,3- Minor injury 4- Non injury																		
	1-Druken driving, 2- Over speeding, 3- Vehicle out of control 4- Fault of driver of motor vehicle/driver of other vehicle/cyclist/pedestrian/passenger 5-Defect in mechanical condition of motor vehicle/road condition.						(	G	1 - T-Junction, 2- Y-Junction, 3 - Four arm junction, 4 - Staggered junction, 5 - Junction with more than four arms, 6 - Round about junction, 7 - Manned Rail crossing, 8 - Unmanned Rail Crossing										
									Н	1-Fine, 2-Mist/Fog,3-Cloudy,4-Light rain,5-Heavy rain, 6-Hail/Sleet, 7-Snow, 8- Strong V storm, 10-very hot,11-very cold, 12-other extraordinary weather condition.							d, 9-Dust		

# 10.2 Accident Report Pkg-3B

						Aco	cident d	lata for	01-02-	2020 to	29-02-2020							
Proje	ect	KSTP 3E	B Upgradatio	n of the road f	rom Kal	arode	to Valav	upara fr	om Ch 3	0+000 to	55+200 of SH 30	Balanc	e works	,				
			A	В	С	D	Е	F	G	Н		No of affected persons						
S.NO	Operational Date	Time of Accident	Accident Location	Nature of Accident	Classifati on of Accident	Causes	Road Feature	Road condition	Intersecti on Type And Control	Weather Condition	Vehicle Responsible	Fatal	Grievous	Minor	Non injured	No of animals Killed of Any	Datroling	Remarks/Crime No.
1	03-02-2020	11.56 AM	Kelanpeedika	Car hit on a pedestrain	3	2	2	1	1	1	KL-59 D 1551	0	0	1	0	0	Yes	56/20
2	11-02-2020	1.30 PM	Kizhoor	Car hit on a bike	3	2	2	1	1	1	KL-11 L 8041	0	1	0	0	0	Yes	69/20
3	11-02-2020	6.15 PM	Kallummootti	Bike hit on a bike	2	2	2	1	1	1	KL-35 B 7933	0	1	0	0	0	Yes	70/20
4	11-02-2020	6.40 PM	Kunnoth	Car hit on a pedestrain	2	2	2	1	1	1	KL-58 C 2341	0	1	0	0	0	Yes	71/20
5	16-02-2020	9.30 PM	Kolichembra (39+)	Tipper hit on a bike	2	2	2	1	1	1	KL-78 1483	0	0	1	0	0	Yes	78/20
6	18-02-2020	7.30 PM	Kizhur	Car hit on a pedestrain	3	2	2	1	1	1	KL-58 X 9342	0	1	0	0	0	Yes	84/20
7	26-02-2020	11.50 AM	CMS School	Bus hit on a bike	2	2	2	1	1	1	KL-58 B 8280	0	1	0	0	0	Yes	104/20
				•						E	1 Circle lane 2 Tons le	2 TL					dan(Madian)	4. FI
	A	Urban/Ru	ral and details of	surronding land us	9					E.	1-Single lane, 2-Two lane, 3-Three Lanes or more without central divider(Median), 4- Four I or more with central divider(Median)						, 4- rour Lanes	
1- Overturning,2- Head on collision, 3-Rear End Collision, 4-Collision Brush/Side Wipe, 5- Right Turn Collision, 6-Skidding, 7-Right Turn Collision, 8-Others(Pl.Specific)								]	F	1-Straight road, 2-Slight curve, 3-Sharp curve, 4- Flat road, 5-Gentle incline, 6-Steep incline, 7 Hump, 8-Dip 9) T/Y Junction						eep incline, 7-		
	С	1 Fatal, 2-Grievious injury ,3- Minor injury 4- Non injury																
	D 1-Druken driving, 2- Over speeding, 3- Vehicle out of control 4- Fault of driver of motor vehicle/driver of other vehicle/cyclist/pedestrian/passenger 5-Defect in mechanical condition of motor vehicle/road condition.							(	G	1- T-Junction, 2- Y-Junction, 3- Four arm junction, 4- Staggered junction, 5- Junction with more than four arms, 6- Round about junction, 7- Manned Rail crossing, 8- Unmanned Rail Crossing								
								]	Н	1-Fine, 2-Mist/Fog,3-Cloudy,4-Light rain,5-Heavy rain, 6-Hail/Sleet, 7-Snow, 8- St Dust storm, 10-very hot,11-very cold, 12-other extraordinary weather con					•			

# 11 Site Work Progress Photographs

## 11.1 Package -1 -Photographs



Bekal fort Road



Bekal Port Auto parking



Bekal fort Road

## 11.2 Package -2 -Photographs



Payangai Bridge inside graniting work



Ramapuram Oxbow land

### 11.3 Package -3A -Photographs



DBM @ CH: 25+640 to 26+260 LHS



DBM @ CH: 21+230 to 21+350 RHS



PEDESTAL CONCRETING @ CH: 2+910



GIRDER LAUNCHING COMPLETED Betwen PIER P2-P3 @ Km 2+910



GABION WORK IN PROGRESS AT CH: 21+370 RHS



DRAIN LAYING @ 21+430 LHS

### 11.4 Package -3B -Photographs



GSB in progress A2 side approach of Iritty Bridge



Footpath & Hand rail work is in progress



• GSB in progress A2 side approach of Iritty Bridge



Oxbow land at 39+350 RHS.



GSB in progress A2 side approach of Iritty Bridge



Oxbow land at 39+350 RHS.

## 11.5 Package -4A -Photographs





Road Marking work in progress.

Pier Concrete work



Casting of PSC Girder at Viaduct work



Reinforment work for Viaduct.

### 11.6 Package -4B -Photographs



Crash barrier and drain work at 7+640, Rejinamundi Culvert



Culvert extension work in progress at Rejinamundi culvert.



Road Marking works completed at BC completed areas.



Footpath interlocking tile fixing work in progress.

## 11.7 Packages-8B-Photographs

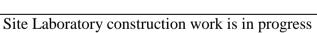




Plant Erection in progress

Staff Quarter in progress







Base camp construction is in progress

## 11.8 Package -8C —Photographs





Plant Erection in progress

Safety measures provided at site





Laboratory consturction completed and equipemnt fixing in progress

Excavation work in progress

# 11.9 SCDP Road -Component B -Photographs



Road Marking @ Mercy



Culvert extension @ Adoor

-----End of Report-----