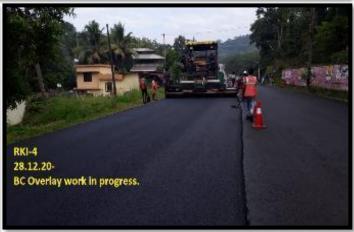
#### GOVERNMENT OF KERALA PUBLIC WORKS DEPARTMENT











# HALF YEARLY PROGRESS REPORT (JULY-DEC) -2020

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

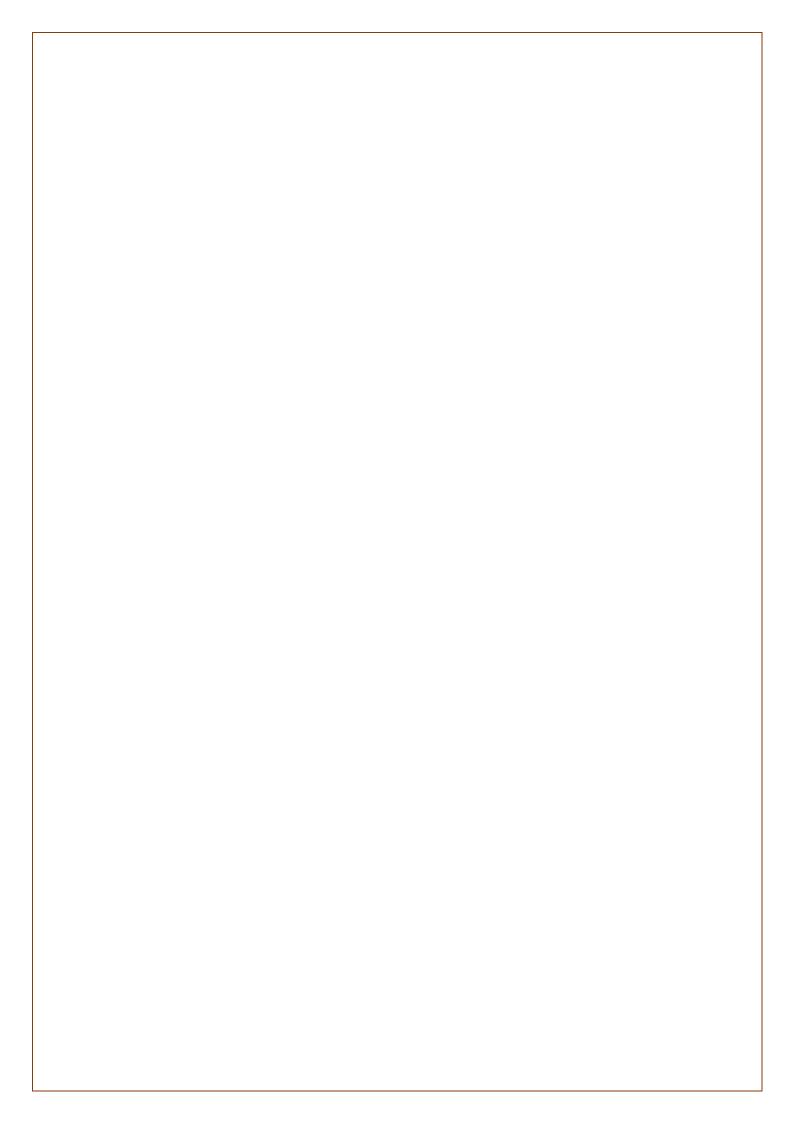


#### PROJECT MANAGEMENT TEAM

KERALA STATE TRANSPORT PROJECT T.C.11/339, SREE BALA BUILDING, KESTON ROAD, KOWDIAR P.O THIRUVANANTHAPURAM-6295003 *Prep By:* PROJECT MANAGEMENT CONSULTANTS



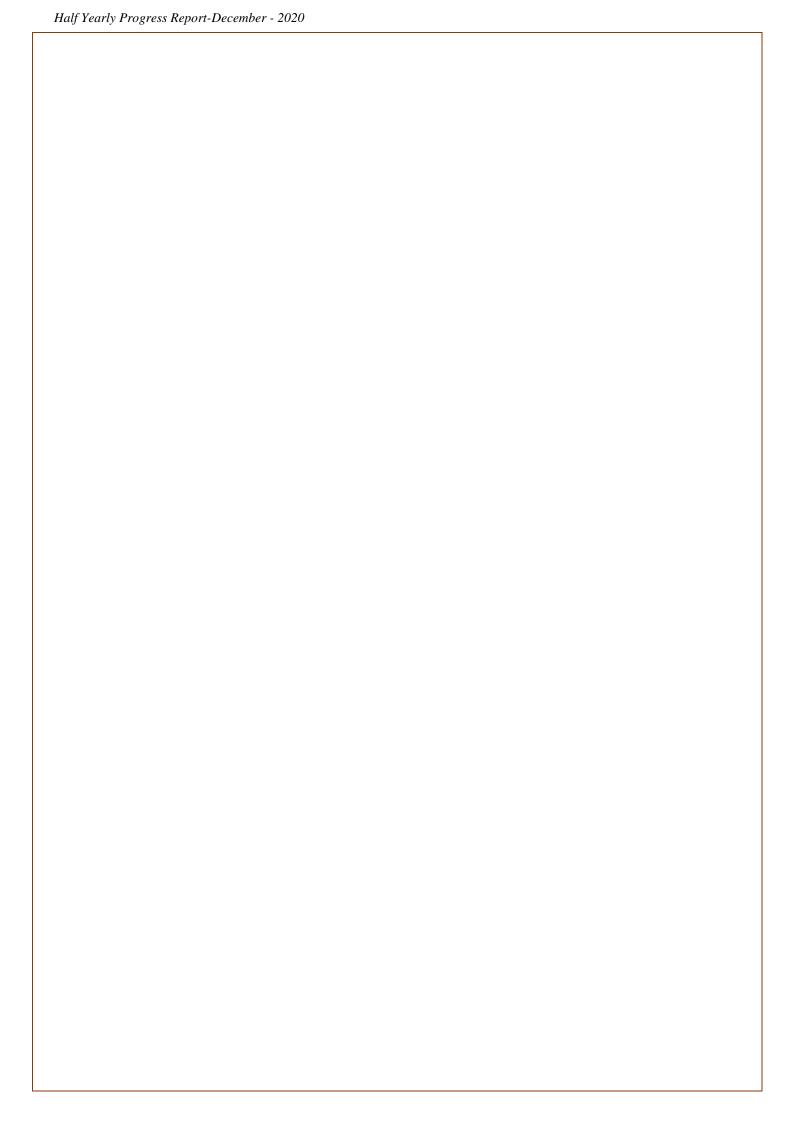
EPTISA SERVICIOS DE INGENIERIA.S.L. II floor, T.C.11/339, SREE BALA BUILDING, KESTON ROAD, KOWDIAR P.O THIRUVANANTHAPURAM-6295003



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#### 1 Executive Summary

#### 1.1 Introduction

The government of Kerala has decided to take up the Phase-II up-gradation component of KSTP as a standalone project vide the" KSTP-II" with assistance from World Bank. The project envisages the up-gradation 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 the 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 31st December 2018, but now stands extended to April 2021and the expected loan closing date 30.04.2021.

#### 1.2 Project Development Objectives

The Project Development objective under the initial stage was to improve road conditions, traffic flow, and road safety with a focus on vulnerable road users 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 pedestrians, motorists, agricultural and industrial producers, consumers, and the 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 components under KSTP-II

#### 1.3.1 Road Upgrading Works:

These works named Component A1 and A 2 will include upgrading of about 363 km of strategically important State Highways to complete network connectivity in the state to reduce travel time between key socio-economic centres.

#### 1.3.2 Road Safety Management:

This component named Component B & C will support the strengthening of the road safety management systems in Kerala to arrest 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 concerning 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 the Modernization of the Road Sector and improving Public Communication and User Engagement in Road Development.

#### 1.3.4 RKI Flood works

These works named Component D will include upgrading of about 800kms due to rehabilitation of affected road infrastructure in 2018 floods in Kerala under the Rebuild Kerala Initiative, of strategically important State Highways to complete network connectivity in the state to reduce travel time between key socio-economic centres.

#### 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, two Superintending Engineer's, 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 the 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 up-gradation 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 a rented office for Team Leader at Thiruvananthapuram near to Client's Office and started functioning from April 2013. Also, the RE office is functioning for Package 3A & 3B at Kuttuparamba in Kannur District for package – III, Thiruvalla Town in Pathanamthitta District for Package 4A & 4B.

#### 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 invited were split into three packages and tender notification issued. Clearance has been received from World Bank for the bid documents. Contract Agreement for Consultancy for CSC for 82.17 Km of up-gradation road was executed with M/s Consulting Engineers Group Ltd on 01.11.2019 and mobilized and in place. Work under this is in progress and a more detailed description of each package is listed further in this document.

#### 2.5 Component B – Road Safety Management implementation

Under this component following works were initiated:

- 1. Strengthening of KRSA is completed
- 2. Challenge fund proposal received from Kozhikode DRSC through KRSA
- 3. Safe Corridor Demonstration Project (SCDP)
- 4. Implement Five other roads as SCDP on the guidelines of the SCDP road

Activity 1 & 2 are completed while 3 is almost in the completion stage. Activity 4 is in progress wherein DPR preparation by the Consultant is in the advanced stage of submission. These works are proposed to be tendered by the end of May 2020.

#### 2.6 Component C – Institutional Strengthening implementation.

#### 2.6.1 Consultancy Services

The following Consultancy services are completed.

- 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 the first 439 km of
  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. The study report has been handed over to PWD, R&B, and further action to improve these roads will be taken by them using their funds.
- 4. Consultancy service for Developing Multi-Model Integrated Transport Hub at 3 cities, Trivandrum, Kozhikode, and Kochi was completed and the report forwarded to Government. This report was also shared with NATPAC for consideration while preparing Comprehensive City Development Projects.
- 5. Preparation of design under the 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 into 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 labor laws and compliance in the 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 liaison 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 Component D – RKI Flood work implementation by KfW& World Bank

After the assessment of flood damages of August 2018, Gok decided to rebuild these damaged roads with the assistance of the World Bank and KfW Bank. Accordingly, a new Component as "Component D "was formalized in June 2019 to take up these flood-damaged roads. PWD is now considering developing a more sustainable and climate-resilient asset stock in the medium to long term (especially during the planned rehabilitation of affected road infrastructure in the 2018 floods in Kerala). The Government of Germany pledged to support the Governments of Kerala in its rebuilding efforts with due attention to "building back better" principles, by providing via KfW Loan. Around 700km of roads have been finalized by DPR Consultants. More details are further described in the following chapters elsewhere in this document.

#### 2.8 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 upon 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 with and continues to comply, as mentioned below

SI. No.	Details of the Action Plan agreed with GoK	Assessment during mission
1	Develop a mutually agreed Governance	Complied. PMC fully mobilized.
	Improvement Action Plan including Strengthening	·
	Fiduciary Arrangements, Quality Assurance and	
	Contract Management by the end of September	
	2017 and fully comply with the plan by January	
	2018	
2	Ensure continuity of Project Director and key	Complied. PMU staffing, however, needs
	project staff till the end of the project	enhancement in view of an expanded mandate.
3	Engage experienced contract management	Complied. Engaged through PMC consultants.
	specialist and quality assurance specialist in the	M/s Eptisa Servicious Ingeniera S. L appointed
	PMT	on 5 <sup>th</sup> March 2019 for 15 months and functional.
		However, in the light of the World Bank's closer
		date being extended, the PMC services has been
		extended till April 2021.
4	Take final decision on way forward for Component	Award of works for Package 8A, 8B and 8C
	A2	completed in November 2019 Works are in
		progress in these packages under EPC
		Mode of Contract. LOA was issued on
		28/09/2020 and the Agreement was executed on
		27/10/2020 for 8A packages. The completion
		time for these works is 24 months.
5	Ensure full commitment of Component B and at	Complied for Component C. For Component B,
	least 80% for Component C	however, 100% compliance can be achieved
		after the remaining 10% commitment (Challenge
		Fund). DPR's were submitted. Technical Bid
		evaluation stage under process.
6	Sustain the progress in Component A1 and reach	Complied. Current physical progress is 95.02 %
	overall progress of 95.02% contributing to at least	and disbursement is 89.73 %.
	20 % project disbursements in the next 3 months	

#### 2.9 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 a review of all quality monitoring activities, KSTP has formed a Quality Review Committee

chaired by the Chief Engineer KSTP, who is arranging reviews. Further, actions 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, 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 before 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 the 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 experienced 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 and were mobilized by the 1st week of March 2019. The quality review committee with Chief Engineer KSTP as Chairperson has been reviewing Quality and Organization meetings regularly in the PMT Head Quarters. An independent Technical Auditor was also appointed to carry out Quality Audit. A Consultant for Post Construction Technical has been selected.

3. Sustain Progress in Component A1 and reach overall progress of 95.02% to at least 40% Project Disbursement.

By the end of December 2020, the physical progress is 95.03% on Sub Component A1 (Road up gradation in 4 Packages). The financial progress is 89.73 %. The overall disbursement as of December 2020 is 108.57 Million USD which is 89.73 % of the overall loan amount of US\$ 121 million committed in component A1.

4. Sustain Progress in 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 an extension of the 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 have been awarded in July & August -2019 and mobilized on-site in the month of December-2019. Details of these packages are explained more in detail in the following chapter of the document.

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

#### Component B

Out of US\$ 22 million (Rs. 12 crore) allocated so far, KSTP has arranged works on SCDP, (Road Safety Interventions), the Capacity Building, and the proposals of the Challenge Fund program are under scrutiny. 100 % has been committed and three roads have been tendered after DPR consultants for Challenge Fund submitted their reports in august 2020. Other works such as Trauma Care, Road Safety Enforcement, etc are in advanced stage and in completion stages..

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.

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 Community Liaison works.

#### Component - D: Flood Control works

Under this component of US\$ 26 million (out of 216) due to time constraints to complete the formalities like financial closure and then implement the three RKI Roads Package, Project 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 an extension of the loan period. Bids have been received for all these packages, evaluations done, and have been awarded in January -2020. The works were mobilized on-site in the month of April-2020 except for One package which was awarded in the month of April-2020. Details of these packages are explained more in detail in other chapters of this document.

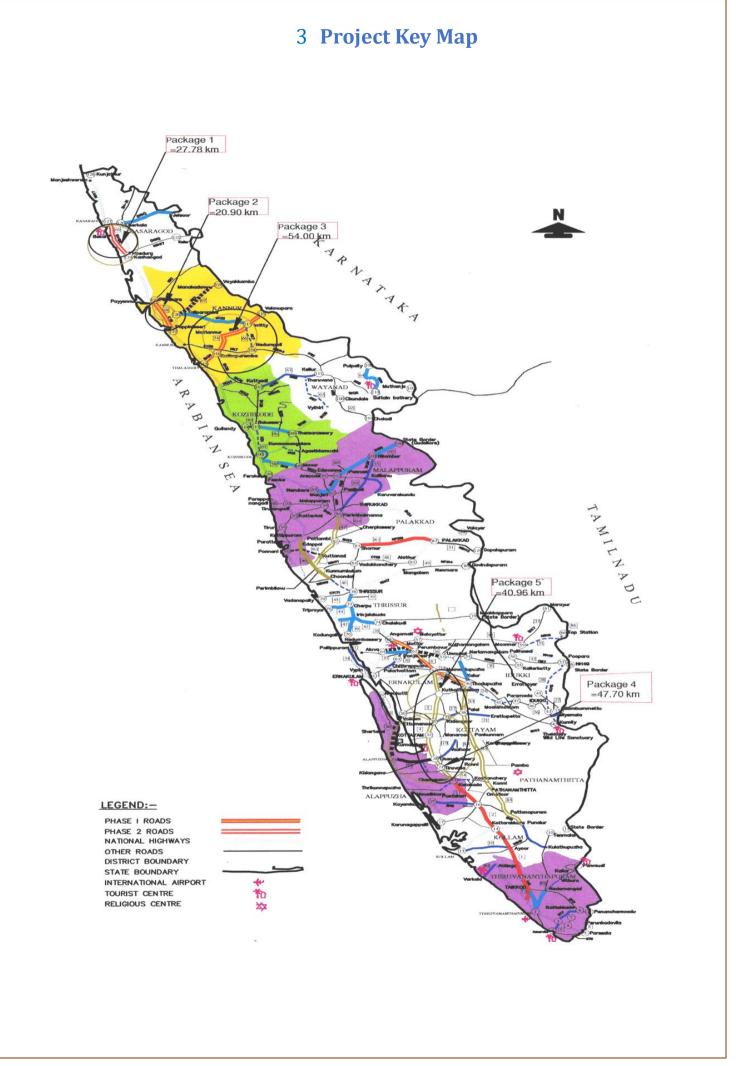
#### 2.10 Compliance of legal covenants

SI.		L FOAL COVENANTO		COMPLIANCE STATUS	
No.		LEGAL COVENANTS		COMPLIANCE STATUS	
A. Ins	titution	al Arrangements	П		
1.	The Project Implementing Entity shall maintain,				
	througl	nout the period of implementation of the Project:			
	a.	A Project Steering Committee ("the PSC"): (i)			
		headed by Chief Secretary of Kerala, and			
		comprised of representatives of Project		a. Steering Committee in place	
		Stakeholders and line department of the		a. Gleening Committee in place	
		Government of Kerala, in numbers, manner, and			
		substance acceptable to the Bank			
	b.	A Project Management Team (the "KSTP") within			
		the PWD: (i) headed by a Project Director in the		b. Project Management Team in place	
		rank of a senior level Chief Engineer and		μ	
		assisted by competent staff			
	C.	An Evaluation Committee ("the Evaluation		c. The Evaluation Committee in place	
		Committee") within the PWD			
	d.	An Environmental and Social Management Cell			
		(the "ESMC") within the PWD with competent,			
		experienced, and qualified staff in sufficient			
		numbers and under terms of reference			
		satisfactory to the Bank, vested with powers,		d. Environmental and Social	
		financial resources, functions, and competencies,		Management Cell in place	
		acceptable to the Bank. Monitor and evaluate			
		contractors' an consultants' compliance			
		therewith, and carry out any necessary updates			
		thereto			

SI.				
Si. No.	LEGAL COVENANTS	COMPLIA	NCE STATUS	
2.	The Project Implementation Entity shall throughout the			
	period of implementation of the Project the services of a			
	supervision consultant (the "Construction Supervision	Construction Supe	rvision Consultant in	
	Consultant"), with qualifications and experience and	place		
	under terms of reference acceptable to the Bank.			
3.	The Project Implementation Entity shall engage:			
0.	a. by no later than twelve (12) months after the			
	effective date, and thereafter maintain throughout	a. It is proposed	to convert PPP mode	
	the period of implementation of the Project, the	to EPC / Item	rate Authority	
	service of an independent engineer (the	Engineer will b	e appointed	
	"Independent Engineer")			
	b. By no later than six (6) months after the effective			
	date, and thereafter maintain throughout the			
	period of implementation of the Project, the	b. Internal Audit	firm appointed for	
	services of a firm of Chartered Accountant with	audit of accou	• •	
	qualification and experience, and under terms of	addit of accou	1110	
	reference, acceptable to the Bank			
R <b>D</b> ro	ject Document			
D. F10				
	The Project Implementation Entity shall:			
	a. Implement the Project in accordance with the	This is complied		
	Project Implementation Plan, the FM Manuel, the GAAP, and the Safeguard documents			
C And				
C. Ant	i-corruption			
	The Project Implementation Entity shall ensure that the	O a maralia al		
	Project is carried out in accordance with the provisions of	Complied		
D 01	the anti-corruption guidelines and the GAAP			
	allenge 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	The Challenge Fur	• •	
	RSA, mobilize local stakeholders, including District Road	Kozhikode has bee	en awarded.	
	Safety Councils, GramaPanchyats, and/or non-			
	governmental organizations			
E. Saf	eguards			
1.	The Project Implementing Entity shall:			
	Carryout the Project in accordance/ compliance			
	with the Environmental Impact Assessment			
	("EIAs"), the Environmental Management Plans	This is complied		
	("EMPs"), the Environmental Management			
	Framowork ("FMF") the Departisment Action			
	Framework ("EMF"), the Resettlement Action			

SI. No.	LEGAL COVENANTS		COMPLIANCE STATUS
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.	relevant Safeguard Document applicable to such civil		Complied with
F. Sug	ggestion and Complaint Mechanism		
	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		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

SI. No.	LEGAL COVENANTS		COMPLIANCE STATUS
	State level grievance redressal mechanism for all other		once a month. The status of GRC is
	aspects of the Project, which systems shall be subject to		attached to the report under Social
	guidelines and procedure, acceptable to the Bank.		Safeguard Management.
G. Pro	oject Surveys		
	The Project Implementing Entity shall carry out at least		
	two (2) Road User Surveys with scope, methodologies,		
	and terms of reference satisfactory to the Bank, to assess	Baseline RUSS done and next survey	
	road user's satisfaction with Project results and its	arrangement completed Survey on	
	implementation, their opinions regarding current and	completed roads in progress.	
	potential sector targets, and their behavioral/ attitudinal		
	changes.		
	SECTION II PROJECT MONITORING, REPORT	ΓIN	G, AND EVALUATION
A. Pr	oject Reports		
1.	The Project Implementing Entity shall monitor and		
	evaluate the progress of the Project and prepare Project		The monthly and quarterly Drainete
	Reports for the Project in accordance with the provisions		The monthly and quarterly Projects
	of Section 5.08(b) of the General Conditions and based		Reports are submitted regularly with
	on indicators as agreed with the Bank. Each such Project		details
	Report shall cover the period of one calendar quarters		
В. <b>Fi</b>	nancial Management, Financial Reports, and Audits		
1.	The Project Implementation Entity shall maintain a		
	Financial Management System and prepare financial		Compliad
	statements in accordance with consistently applied		Complied
	accounting standards acceptable to the Bank		
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		Complied
	the Project covering the calendar quarter, inform and		
	substance satisfactory to the Bank		
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		Complied
	than ten (10) months after the end of the period,		
	and		
	b. made publicly available in a timely fashion and a		
	manner acceptable to the Bank.		Document is open to public



#### 4 Funding & Disbursement

The total disbursement at the end of December 2020 from the World Bank was 132.89 (Including front end fee) 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 the World Bank - US\$445 ml

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

Initial Project implementation Start Date - July 30 2013

Project implementation End Date - 31st December 2018

Initial Expected closing date (Loan) - 30<sup>th</sup> April 2019

Extended Closing Date (Loan) 30<sup>th</sup> April 2021

Bank's assistance - 56% of eligible expenditure except land

acquisition, utility shifting, and administrative cost. State share is 44%. For EPC World

Bank Share component is 100 %.

#### 4.1 Current Disbursement Status

					DISBURSED	BALANCED
SI No	Claim	Date	EXPENDITUR E in Lakh	AMOUNT CLAIMED in Lakh	USD in millions	FUNDS AVAILABL E FOR CLAIM (USD)
			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	1 <sup>st</sup> Quarter					213.77
3	2 <sup>nd</sup> Quarter	01.07.13 to 30.9.13	1,355.79	764.00	1.23	212.54
4	3 <sup>rd</sup> quarter	01.10.13 to 31.12.13	1,906.01	1,071.00	1.71	210.82
5	4 <sup>th</sup> quarter	01.01.14 to 20.03.14	2,696.00	1,510.00	2.50	208.32
SI No		Date	EXPENDITUR E in Lakh	AMOUNT CLAIMED in Lakh	DISBURSED	BALANCED FUNDS AVAILABL E FOR CLAIM (MUSD)

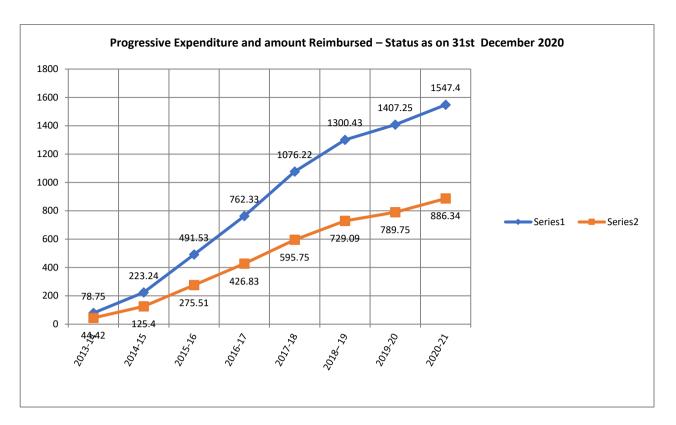
6		21.03.14 to 31.03.14	53.79	30.00	USD in millions	208.27
7	4 St. O	01.04.14 to 18.06.14	TOTAL	TOTAL	TOTAL	TOTAL
8	- 1 <sup>st</sup> Quarter	19.06.14 to 30.06.14	14.69	8.00	0.02	206.55
9	2 <sup>nd</sup> Quarter	01.07.14 to 30.09.14	1,405.61	787.00	1.27	205.28
10	3 <sup>rd</sup> quarter	01.10.14 to 31.12.14	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	1 <sup>st</sup> Quarter	01.04.15 to 16.06.15	3,534.14	1,992.00	3.14	192.06
14		17.06.15 to 30.06.15	154.40	86.00	0.14	191.92
15	2 <sup>nd</sup> Quarter	01.07.15 to 30.09.15	3,527.06	1,977.00	3.04	188.89
16	3 <sup>rd</sup> 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		14.03.16 to 31.03.16	2,861.91	1,603.00	2.41	172.59
19	1 <sup>st</sup> Quarter	01.04.16 to 10.06.16	2,037.40	1,141.00	1.69	170.90
20		11.06.16 to 22.06.16	2,957.89	1,657.00	2.45	168.45
21	2 <sup>nd</sup> Quarter	23.06.16 to 31.08.16	4,786.10	2,680.00	4.01	164.44
22		01.09.16 to 30.09.16	3,981.82	2,230.00	3.26	161.18
23	3 <sup>rd</sup> 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	1 <sup>st</sup> Quarter	01.04.17 to 31.05.17	4,292.74	2,404.00	3.72	146.02
SI No		Date	EXPENDITUR E in Lakh	AMOUNT CLAIMED in Lakh	DISBURSED	FUNDS AVAILABL E FOR CLAIM (MUSD)
26	maganian	01.06.17 to 30.06.17	3,933.36	2,203.00	USD in millions	142.58
27	2 <sup>nd</sup> Quarter	01.07.17 to 30.09.17	TOTAL	TOTAL	TOTAL	TOTAL
28	3 <sup>rd</sup> 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	7	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

			154,739.55	88,633.56	132.35*	
		31.12.20*				
49	3 <sup>rd</sup> Quarter	30.09.20 to				83.11*
48	2 <sup>nd</sup> Quarter	25.06.20 to 30.09.20	3656.03	2995.00	4.03	83.11
47	1 <sup>st</sup> Quarter	01.04.20 to 24.06.20	3805.99-	2703.00	3.58	87.14
46	4 <sup>th</sup> Quarter	01.01.20 to 31.03.20	5038.19	3086.00	4.07	90.72
45	- 3 <sup>rd</sup> Quarter	01.12.19 to 31.12.19	1513.75	875.00	1.23	94.79
44	3 <sup>rd</sup> Quarter	01.10.19 to 31.12.19	1530.80	865.00	1.22	96.01
43	2 <sup>nd</sup> Quarter	28.06.19 to 30.09.19	2,961.19	1,689.00	2.35	97.24
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	1 <sup>st</sup> 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	4 <sup>th</sup> quarter	01.01.19 to 28.02.19	3,075.19	1,722.11	2.49	106.27
37	3 <sup>rd</sup> quarter	19.09.18 to 31.12.18	5,817.34	3,258.00	4.59	108.76
36	2 <sup>nd</sup> Quarter	01.07.18 to 18.09.18	7,104.38	3,982.00	5.49	113.35
35		23.06.18 to 30.06.18	89.25	50.00	0.07	118.84
34		21.06.18 to 22.06.18	1,344.42	753.00		118.91
33		01.06.18 to 20.06.18	1,114.33	627.00	2.02	118.91
32	1 <sup>st</sup> Quarter	01.04.18 to 31.05.18	1,925.29	1,086.00	1.61	120.93

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

## 4.2 Progressive Expenditure and amount Reimbursed – Status as of 31 December - 2020

Year	Cumulative Expenditure (INR Crores)	Progressive Amount Reimbursed (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
2020-21	1547.40	886.34



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

Fiscal Year	2014	2015	2016	2017	2018	2019	2020	2021
	July 2013- June 2014	July 2014- June 2015	July 2015- June 2016	July 2016- June 2017	July 2017- June 2018	July 2018- June 2019	July 2019- June 2020	July 2020- June 2021
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	19.25	12.44	4.03*
Cumulative	8.92	23.54	47.02	72.88	96.63	115.88	128.32	132.35*

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

#### 4.3 RESTRUCTURING OF LOAN IN 2019

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 Department of Economic Affairs submitted a revised request for utilizing the savings (USD 45 million) from KSTP II Loan for rebuilding the Kerala initiative. **A new Component "D" was introduced**, the funds of which were to be utilized for PWD /LSGD and RKI roads. Under this component, roads affected 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 the chapter's forthcoming in this report.

### THE DETAILS OF EXPENDITURE OF COMPONENT D WAS INITIALLY AS SHOWN IN THE TABLE BELOW. TABLE -2

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

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 A 2 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 + 3 M USD = 26.0 M USD for Component D is proposed.

Component	Original Loan Allocation (Million USD)	Revised Loan Allocation (Million USD)	Completed Loan in (Million USD) till December 2020
Component A1: Road Network Upgrading and Safety Improvement (282 Kms Upgrading)	166	121	108.57*
Component A2: Road upgrading and safety Improvement (EPC) (82.04 Kms)	33	52	6.49*
Component B: Road Safety Management	12	12	8.97*
Component C: Institutional Strengthening	5	5	6.18*
Component D: RKI Roads		26	2.14*
Total	216.0	216.0**	132.35*

Note :\*\* Currently there is a proposal from WB /DEA to reduce the loan amount to 196 M USD by returning 20 M USD and negotitations are in process to conclude on this.

#### **5 Current Project Status**

#### 5.1 Component A1:

The upgrading works under the initial stage hereinafter referred to as *Component A1* for seven road packages were identified and taken up under the KSTP-II. The major items of works included were an improvement to a gradient, widening, and strengthening the roads including minor realignments wherever essential, reconstruction of narrow bridges and culverts, and improvements to the drainage system. The carriageway proposed are generally 2 lane roads with a width of 7.0 m and hard shoulders of 1.50 m. on either side. The Right ofWay is generally 15.0 Meters and required acquisitions 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 in table 1. The land acquisition for the project roads is almost completed except in the Perimbilavu- Pattambi- Perinthalmanna Road. Package 3 was further split into two packages and accordingly Package 3A and 3B were tendered. Two additional stretches of Thiruvalla Town and Bypass were taken up as Package 4A and 4 B.

Hence Overall 10 Packages as shown in table 3 covering a total length of **285.01** km were to be done under Component A 1. Out of these, 280.31 km of Blacktop completed, and also Packages 1, 2, 4, 5, 6, 7 & 4B are completed while Packages 3A, 3B & 4A are in progress. Packages 1, 2 & 4 B are in the "defect liability period" with ongoing pending works under road furniture items, snag list, and additional junction improvement work. These works were undertaken as there were savings in the estimated tendered cost.

Table 3

	List of Roads Under Component A 1 (Item Rate Contracts)  Stretch of the Project State Highway / Road  Proposed Length													
SI. No	Package No	Stretch of the Project State Highway / Road Number	Proposed Length (Km.)											
1	KSTP-2/UG/1	Kasargod-kanhangad-SH-57	27.78											
2	KSTP-2/UG/2	Pilathara-Pappinssery-SH-67	20.90											
3	KSTP-2/UG/3A	Thalassery-Kalaroad-SH-30	28.80											
4	KSTP-2/UG/3B	Kalaroad-Valavupara-SH-30	25.20											
5	KSTP-2/UG/4	Chennaganoor-Ettamannoor- SH-1	47.70											
6	KSTP-2/UG/4A	Thiruvalla bypass (rearranged from Package 4)	2.30											
7	KSTP-2/UG/4B	Thiruvalla town (rearranged from Package 4)	2.00											
8	KSTP-2/UG/5	Ettamannoor-Muvattupuzha	40.96											
9	KSTP-2/UG/6	50.00												
10	KSTP-2/OL/7	Perimpilavu-Perintalamanna	39.37											
	Total Le	ngth 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 lanes 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 the Defects Rectification Period.
- Environmental protection measures and Social enhancement works/ landscaping works etc.

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

Name of consultant	Contract signed	Contract Period	Commence ment 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	55,76,15,666 /-	I , II , III A , III B , IV , IV A, & IV B
CSC-2 – M/s MSV International USA		30 months	05.05.2014	4,67,41,766 /-	Package VI

Package VII was completed 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 has been given an Extension of time up to 31-12-2020 to facilitate the completion of works under Component A 1, for Package IV A Thiruvalla Bypass as on date.

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

							Project	Details of K	(STP-2 under	Sub Component	A 1 Date	e: (31.12.202	0)				
SI.No	Package No	Stretch of the Project State Highway / Road Number	KSTP incharge	Cotractor's Name	Supervision Consultant	EOT Date	EOT-2 (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	Remarks	Remarks / Reasons
1	KSTP-2/UG/1	Kasargod-kanhangad-SH-57	Shyamlal	M/s.RDS Projects Limited	EGIS India	28.02.2018			31-07-2020	31-07-2021	133.05	122.86	6.15	4.04	Completed	Section 1 : 0+000 to 23+180 & 23+350 to 27+780 (TOC 01-04-2018)	Additional work is in progress in DLP
																Section 2 :23+180 to 23+350 (01-07- 2018)	period of Bakal road
2	KSTP-2/UG/2	Pilathara-Pappinssery-SH-67	Rujeesh	M/s.RDS Projects Limited	EGIS India	31.03.2018			31-07-2020	31-07-2021	118.29	102.60		15.69	Completed	Section 1 : Except Ramapuram bridge and Thavam ROB (01-04-2018)	Additional work is in progress in DLP period of Oxbow land & Ramapuram
																Section 2 :Ramapuram Bridge and Thavam ROB (01-09-2018)	bridge
3	KSTP-2/UG/3A	Thalassery-Kalaroad-SH-30	Rujeesh	M/s.Dinesh chandra R.Agarwal Pvt.Ltd.,	EGIS India		31.03.2019	31.10.2020	31-03-2020	31-03-2021	156.33	108.38		47.95	Physical progress : 76.60 % Financial progress : 70.60%	Section 1 : Road works other than Franholi Bridge	IPC-23 has been Certiftfed by Employer,EOT 06 has been approved by
																Section 2 :Eranholi Bridge Work	Employer
4	KSTP-2/UG/3B	Kalaroad-Valavupara-SH-30	Shyamlal	M/s.GHV-EKK Infrastructure & Co.	EGIS India	31.01.2019	15.05.2019		31-12-2020	31-12-2021	209.68	193.67	5.06	10.95	Physical progress :94.32% Financial progress : 89.09%	Section 1 : Except Iritty Bridge and Kootupuzha Bridge	IPC-36 has been Certiftfed by Employer & Irrity Bridge upto 31-12-2020
						31.01.2019	30.09.2019		30-04-2021							Section 2 :Iritty Bridge & Kootupuzha Bridge	Koottupuzha Bridge & their approaches upto 30-04-2021
5	KSTP-2/UG/4	Chennaganoor-Ettamannoor- SH-1	Chandu	M/s Delma Sreedhanya Jv.	EGIS India	31.03.2018			31-03-2018	31-03-2019	293.58	278.18		15.40	Completed	TOC issued 01.04.2018	
6	KSTP-2/UG/4A	Thiruvalla by pass (rearranged from Package 4)	Sonu	M/s.GHV India Pvt Ltd	EGIS India	NIL	NIL		31-12-2020	31-12-2021	37.03	16.99		20.04	Physical progress : 80.28% Financial progress :68.79%	EOT Proposed	EOT -02 has been approved till 31-12- 2020
7	KSTP-2/UG/4B	Thiruvalla town (rearranged from Package 4)	Sonu	M/s.EKK Infrastructure Ltd.,	EGIS India	NIL	NIL	15-12-2019	15-06-2020	15-06-2021	7.77	4.83	0.93	2.94	Physical progress : 99.0 % Financial progress : 63.06 %	EOT Proposed	Certificate of Completion has been issued on 29 <sup>th</sup> May 2020.
8	KSTP-2/UG/5	Ettamannoor-Muvattupuzha	Sonu	M/s.NAPC Ltd.,	EGIS India	25.02.2018			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	
9	KSTP-2/UG/6	Ponkunnam-Thodupuzha	Rujeesh	M/s.GHV-EKK Infrastructure & Co.	M/s MSV International USA	28.03.2017			28-03-2017	28-03-2018	227.13	223.25		3.88	Completed		
10	KSTP-2/OL/7	Perimpilavu-Perintalamanna	XXXXX NA	M/s Nath constructions	Under KSTP				02-03-2017	02-03-2018	8.11	8.11		0.00	Completed		
		Total Length ι	under this Component	in Km is	<u> </u>						1362.46	1222.55		128.70			

									Projec	ct Details of KSTF	2-2 under Sub Con	nponent A	2						
Ş	SI.No	Package No	Stretch of the Project Road	Type of Contract	Contractor's Name	Supervision Consultant	Length (Km.)	Estimate d Cost	Orginal completion Date	Appointed date	Revised Appointed date	Awarded Cost of the Project (Cr.)	Actual Unt Cost /km in Crores	Value up to IPC submitted /Final Payment done as on date in Crores	Saving / Overbudget/ RunningBills	Status of the project	TOC /Completion certificate issued	Remarks / Reasons	Variation Order/ Supplementary Agreement Status
	1	KSTP- 2/OL/8A	Punalur- Konni		Cherian	M/s Consulting Engineering Services	29.84	226.61	LoA is	ssued on 28-0	9-2020	221.04	7.41			Agreement executed on 27/10/2020, Appointed date is 17.12.2020			
	2	KSTP- 2/OL/8B	Konni - Placherry		Infrastructure	M/s Consulting Engineering Services	30.16	274.74	29-10-2021	279.00	9.25	279.00	13.85	27.95		Physical progress : 28.08 % Financial progress : 10.02 %	Mobilization advance taken	RA-MA-3 (3rd mob. Advance) pending with Authority	
	3	KSTP- 2/OL/8C	Placherry - Ponkunnam		Sreedhanya	M/s Consulting Engineering	22.17	236.79	21-12-2021	248.5	11.21	248.5	12.43	58.52		Physical progress : 51.96 % Financial progress : 23.53 %	Mobilization advance taken	RA-MA-3 (3rd mob. Advance) payment received	

	Constructions	Services								
			82.17	738.14		748.54	72.47			

							Safe Co	orridor Demon	stration Project (Ur & C)	nder Compon	ent B					
il. No Package No	Stretch of the Project	Town of Contract	Contractor's Name	Supervision	Lourselle (Mars.)	Original	EOT		DLP	Awarded Cost of	Revisedcostofth	IPC Paymentin	Saving / Overbudget/	Chabas of the section	Garage Marie Constitution of the Constitution	Remarks / Reasons
il. No Package No	Road Road	Type of Contract	Contractor's Name	Consultant	Length (Km.)	Completion date		Completion date	Duration from Completion date	the Project (Cr.)	Project (Cr)	Cr Paymentin	Running Bills /Balance	Status of the project	Completion certificate issued	Remarks / Reasons
4 KSTP-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	30.09.2020		146.67	137.82	124.43	22.24	Physical progress:91.27 % Financial progress: 84.83 %	Contactor doing work with LD imposition	SCDP project under Component of B & C
		rall Length inKm			445.83											
								Chal	lenge Fund of KS	TP						
								D	LP							
Sl. Package No	Stretch of the	Type of	Contractor's	DPR Consultant	Length	Date of	Completion	Completion	Duration from	Estimated Cost of the	Awarded	Revised Cost of the		Status of the	Completion certificate	Remarks /

		Challenge Fund of KSTP															
									D	LP							-
Sl. No	Package No	Stretch of the Project Road	Type of Contract	Contractor's Name	DPR Consultant	Length (Km.)	Date of Commence ment	Completion date	Completion date	Duration from Completio n date	Estimated Cost of the Project (Cr.)		Revised Cost of the Project (Cr)	Status of the project	Completion certificate issued	Remarks / Reasons	
1	KSTP-II/CF-1	Pavangad- Korapuzha				5.5					10.02		5.65				
2	KSTP-II/CF-2	Medical College- Kannamoola- Pallimukku- Pettah	Item	Rate Contract		3.8					7.5		5.15	Bids were received for		The other 2 Roads are in PWD priority	
3	KSTP-II/CF-3	Kottiyam-Kundara Road			M/sEGISIndia PvtLtd	11.7		Une	der procureme	ent stage	4		17.02	all three roads. Under technical Evaluation stage in Retender			
4	KSTP-II/CF-4	Vypin-Munambam				25.1 8					5		31.43	stage in Retenuel			
5	KSTP-II/CF-5	Thrissur- Kunnamkulam State Highway				25					10		39.09				
						71.18					36.52		95.49				

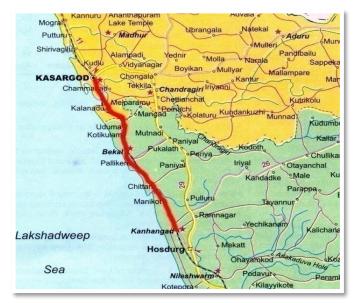
		Component D (RKI Roads Flood control)															
SI.	No F	PackageNo/Type Stretch of the Project Road	Type of Contract	Contractor's Name	Supervisio n Consultant	Length (Km.)	Estimated Cost	Orginal completion Date	Appointed date	Duration of the Project	Awarded Cost of the Project (Cr.)	Actual Unit Cost /km in Crores	Value up to IPC submitted /Final Payment done as on date in Crores	Overbudget / Running Bills	Status of the project	Remarks / Reasons	Variation Order/ Supplementary Agreement Status
1		CSTP- Chemmannar Gap road Km.0/00to31/500(except km.10.650)	Engineering Procurement Construction (EPC)	M/s DRAIPL – GREENWORTH (JV)	M/s Consulting Engineering Services	29.94	127.55	17-08-2021	18.08.2020	12 Months	146.67	4.90			The contractor is doing inventory surveys of the project roads		
2		CSTP- L'/PMT/RKI 3 Painavu-Thannikandom	Engineering Procurement Construction (EPC)	Infrastructur	M/s Consulting Engineering Services	21.00	86.82	29.04.2021	30.04.2020	12 Months	95.40	4.54	1.91	93.49	, , ,	RA-MA-1 (1st mob. Advance) Payment received	
3		Adoor- Chenganoor	Engineering Procurement Construction (EPC)	M/s.EKK Infrastructur	M/s Consulting Engineering Services	23.8	93.59	29.03.2021	30.03.2020	12 Months	98.1	4.12	4.90	93.20		RA-MA-2 (2nd mob. Advance) payment received	
						74.74	301.39				193.5		3.872	186.69			

#### Details below as per MPR submitted by EGIS ( December 2020)

#### 5.4 Packages under Component A1 Status

#### 5.4.1 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 Contractor	S Projects Pvt		Physical Progress in % (Upto Dec -2020)	Financial Progres in % (Upto Dec - 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 Dec -2020 in Crores
28-02-2018	27-02-2019	21.66	121.99	122.86

The Taking-Over Certificate issued for Sections:

- Except for Kanhangad town w. e. f 01st April 2018
- For Kanhangad town w.e.f 01st July 2018
- Performance Certificate has been issued on 25.02.2020

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

#### **SUMMARY OF PROJECT COST**

Initial Contract Value (Rs.) - 1,33,05,79,485/Contract value of works executed (Rs.) - 92,86,10,752/Value of works as per VOs (Rs.) - 21,66,82,406/-

Price adjustment as finalized (Rs.) - 2,57,41,802/-

Additional works proposed - 4,88,93,909/-

Total Value including Price Adjustment - 1,21,99,35,883/-

Saving in Project Cost - Rs. 11,06,43,602/-

#### **Additional Works**

Additional works entrusted to Contractor during DLP is completed except the hindered location of Km. 14+800. The works remaining is the one-way road on the western side of Pallikkara ROB and the proposed drain for this road. The land issue has been cleared and the Contractor started this proposed work. Shifting of electric cable and setting the electric post to the extreme edge of ROW was another hindrance and are in progress.

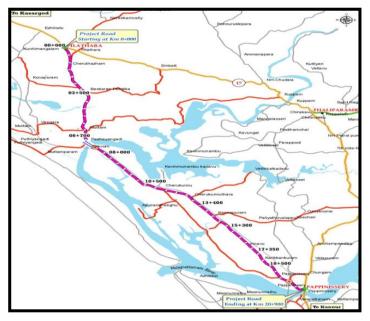
Addi	tional Work	Status					
KANI	HANGAD TO	OWN ADDIT	IONAL WO	ORK (CHAINAGE :- 24+870	TO 26+400 BHS)		
SI	Chainage		Side	Description of Work	Status	Remarks	
	From	То					
1	24+870	26+400	BHS	Interlocking Tiles	Completed		
PAL	LAKUNNU V	WIDENING \	WORK (CH	IAINAGE :- 10+310 TO 10+	610 BHS)		
1	10+300	10+610	RHS	BC	Completed		
2	10+300	10+635	LHS	BC	Completed		
BEK	AL FORT W	ORK (CHAI	NAGE :- 1	4+220 RHS)	1		
1	00+020	00+295	BHS	GSB & WMM	Completed		
2	00+060	00+295	BHS	DBM & BC	Completed		
3	00+000	00+280	BHS	Drain Work +Cover Slab	Completed		
4	00+030	00+280	BHS	Foot Path Kerb	Completed		
5	00+000	00+230	BHS	Water pipe line relaying	Completed		
6	00+000	00+230	BHS	Electrical Utility	Completed		
PALL	IKKARA RO	B SERVICI	E ROAD W	ORK (CHAINAGE :- 14+60	0 RHS)		
1	14+600	Service Road	RHS	Embankment Filling, SG, GSB & WMM, DBM & BC	Embankment filling Completed and stopped	Stopped due to Public against petition filed against KSTP (Case registered)	
Cast	Insitu Drain	near Palli	kka <mark>ra Toll</mark>	Booth 14+400 TO 14+530	LHS		
1	14+240	14+545	RHS	Drain Excavation	Completed		
2	14+240	14+545	RHS	PCC	Completed		
3	14+240	14+545	RHS	Raft	Completed		

4	14+240	14+545	RHS	Wall	Completed	
5	14+240	14+545	RHS	Cover Slab	Completed	
6	14+430	14+590	LHS	Water Utility Work	Completed	
7	14+430	14+590	LHS	Excavation for Cast Insitu Drain Laying	Completed	Due to Elec. Pole not
8	14+430	14+550	LHS	Raft	Completed	Shifited , the balance work
9	14+430	14+550	LHS	Wall	Completed	has been
10	14+430	14+550	LHS	Cover Slab	Completed	pending from 14+ 550 to 14+590 LHS

#### Key Issues /Delays (July to Dec 2020)

- Contract for Rehabilitation of existing Bridges at "Bakal" and "Chandragiri" on KK road through E-tendering has been awarded to M/s PADMAJA SPECIALITIES, Kochi and Agreement executed. Rehabilitation Works about Chandragiri Bridge have been completed and the works for Bakal Bridge are in progress.
- The progress of Works is very slow, and the Employer has extended the time of completion until July 2020 with the imposition of Liquidated damages for this work.
- Works for Chandgagiri Bridge as per original scope is completed and Bakel bridge in progress. Variation initiated for some extra works are pending with KSTP.

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



Name of Contractor	Original date of Contract Value in completion Crores		Physical Progress in % (Upto Dec-2020)	Financial Progres in % (Up to Dec -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 Dec-2020 in Crores
31-03-2018	31-03-2019	15.96	98.330	102.18 Cr

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, the Defect Liability Period has been extended for Section – 1.

#### Summary of Project Cost

Initial Contract Value (Rs.) - 1,18,29,77,833/-

Contract value of works executed (Rs.) - 82,36,71,794/-

Value of works as per VOs (Rs.) - 15,96,32,324/-

Price adjustment as finalized (Rs.) - 22,68,74,96/-

Additional Works proposed - 1,56,78,061/-

Total Value including Price Adjustment - 98,33,04,118/-

Saving in Project Cost - Rs. 19,96,73,715/-

#### **Construction Activities**

During DLP, instructions were issued by KSTP and Supplementary Agreement executed to carry out certain additional works like reconstruction of Old Ramapuram Bridge Approach and development of Oxbow land at Ramapuram as proposed by the MLA. Later, certain further modifications suggested by MLA, and accordingly Contractor submitted the revised design and Cost Estimate and has been approved. Employer has awarded extension of time for completion for Oxbow land development and construction of Approaches to old Ramapuram bridge up to 31.10.2020.

Oxbow land development has been completed and the Inauguration was done on 05th November 2020.

Old Ramapuram Bridge approach works are in the completion stage.

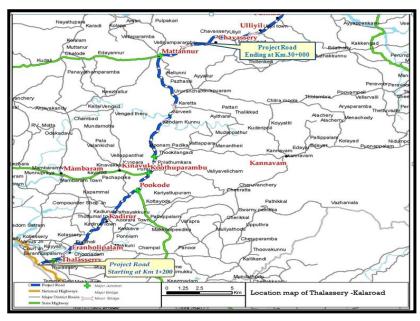
PROJECT Upgradation of the Road from Pilathara (Km 0+000) to Pappinissery (Km 20+900) of SH-67									
CLIENT Project Director Kerala State Transport Project Phase II									
CONSULTANT	M/s Egis Interntional S	SA IN JV with I	Egis India Consulting En	gineers Pvt Ltd					
CONTRACTOR	M/s RDS Project Ltd								
Proposed celluar type Aproach at Ramapuram Old River Bridge ( 4+260)									
STAUTS OF WORK AS	S on 31.12.2020								
ltem	Cost of Works	%	Works completed	% Completion	Remakrs				
Foundation	45,80,395	43%	54,67,843	51%					
Substructure	26,00,481	24%	21,52,199	20.1%					
Superstructure	26,87,716	25%	22,44,444	21%					

Highways	8,64,269	8%		0%	
Total	1,07,32,861	100%	98,64,486	92%	
		Physical	Progress		
Pile completed	14		14	100%	
Pile Cap Completed	7		7	100%	
Wall Completd	11		11	100%	
Slab	2		2	100%	
				100%	
CRASH BARRIER		Completed	In progress		
A1 Side	24 mtr		12		LHS & RHS
A2 Side	36 mtr				LHS & RHS
	0		12		
Backfillign behind abutmets		Completed	In progress		
A1 Side	1		1		
A2 Side	1	1			
	2		1		
Aporach / cantiliver slab		Completed	In progress		
A1 Side	1				
A2 Side	1		1		
	2		1		

#### Key Issues ( July to Dec- 2020)

- Contract for Rehabilitation of existing Bridges at Pazhayangadi on PP road through E-tendering has been awarded to M/s PADMAJA SPECIALITIES, Kochi and Agreement executed.
- Rehabilitation Works pertaining to Pazhayangadi Bridge is in progress. The progress of Works is very slow.
   Extension of Time approved is till 31 July 2020 with the imposition of Liquidated damages.
- Variation initiated to carry out certain extra works and approval of the VO submitted is pending with the Employer.

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



Name of Contractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Up to Dec -2020)	Financial Progress in % (Upto Dec-2020)
M/s.DineshChandra R Agrawal Pvt.Ltd	26-06-2018	156.33	76.60	70.60
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 Dec- 2020(Net Amount)
31st October-2019				

The Contract for the Upgradation of Road from Thalaserry (Km.1+200) to Kalarode (Km.30+000) has been awarded to M/s Dinesh Chandra R Agrawal Infracon (P) Ltd. The date of commencement of the Project was 27<sup>th</sup> June 2016 and the stipulated time of completion for completion of Milestone-I was 26<sup>th</sup> September 2017 and for Milestone-II was 26<sup>th</sup> June 2018. However, EOT-01 to EOT-05 has been granted by the Employer.

19.96 Cr

152.29

108.38

- EOT-01 Milestone-I merging with Milestone-II Completion date of 26th June 2018
- EOT-02 Completion of Whole of Works by 31st March 2019

31st March -2020

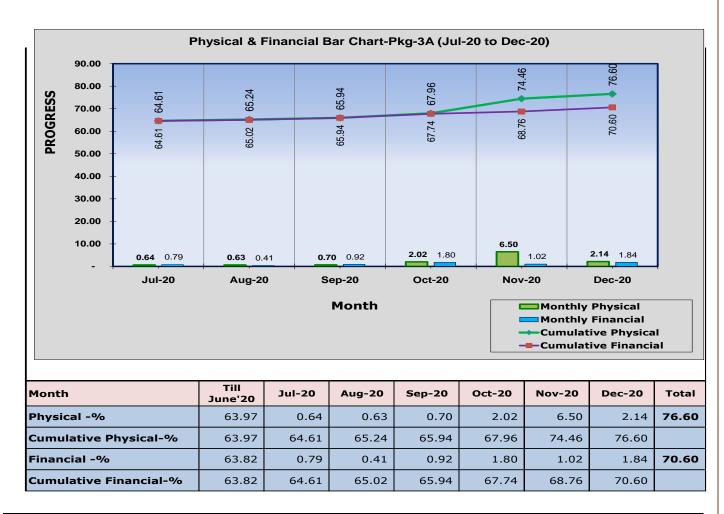
31st Dec-2019

- EOT-03 a. Eranholi Bridge Approaches and Service Road and whole project road from Km 1+200 to Km 30+000 by 31st October 2019
  - b. Commissioning of Eranholi Bridge -31st December 2019
- EOT-04 Completion of Whole of Works by 31st March 2020
- EOT-05 Extension of Time for whole project including Ernholi Bridge and approaches up to 30.10.2020

EOT-06 - Contractor has submitted application for completion of Road works till 31st January 2021 and time for completion of Eranholi bridge till 31st March 2021

#### **Work Progress**

## Cumulative Physical progress achieved is 76.60% (Progress acheived from July to December is 12.63%)



Sl	Item	Half Yearly	Cumulative	
No.	Item	<b>Progress</b>	Progress	Balance Work
	Main Carriageway			
1.	Exc up to SG	0.650Km	28.155 Km	0.645 Km
2.	GSB	0.685 Km	28.150 Km	0.650 Km
3.	WMM	1.335 Km	28.140 Km	0.660 Km
4.	DBM	1.360 Km	28.140 Km	0.660 Km
5.	BC	4.640 Km	25.793 Km	3.008 Km
	Struc	tures		

Sl		Half Yearly	Cumulative			
No.	Item	Progress	Progress	Balance Work		
6.	Major Bridge @ 2+910	Prestressing of 3 Girders completed, Abutment, Abutment cap and pedestal of A2 completed during this quarter. P3 Pier Cap, P1-P2 and P3 Pedestals Completed.Girder Launching and Cross Beam casting between pier P1 and P2 completed.VUP Excavation completed at A2 Approach.	Bridge has been redesigned by giving 5m vertical clearance conforming to the standards of Inland Navigation Department and the drawings approved by Client. The design has been proof checked by IIT, Palakkad.  Pile load test compteded at both Abutments.  Piling work for abutment A1 and Piling and pile cap for abutment A2 complted.  Substructure for Abutment A2, Pier P1,P2 & P3 completed.  3Nos out of 3Nos of PSC Girder casting and stressing completed.  Pedestal concrete, Fixing of Elastomeric Bearing, Girder Launching and Deckslab concrete completed between Pier P2-P3.  Pedestals, Girder Launching and Cross girder concreting completed between Pier P1 and P2. Deck slab shuttering work is in progress. Superstructure Reinforcement and shuttering works for span between Pier P3 and Abutment A2 is in progress.			
7.	Minor Bridge @ 21+162		Bridge completed and	opened for Traffic.		
8.	Major Bridge @19+758		Bridge completed and	opened for Traffic.		
9.	Minor Bridge @ 29+570		Bridge completed and	opened for Traffic.		
	Culverts					
10.	Pipe Culvert		Pipe Culverts - 6 Comp			
11.	Box Culvert		apleted out of 30 Nos			
12.	Slab Culvert	-	Slab Culverts – 28 Completed out of 30 Nos and 1 culvert work is in progress.			
13.	Gabion Wall	870.30	5906.3cum Completed			

Physical progress has been corrected in this report based on the remaining works to be completed.

#### Financial Progress

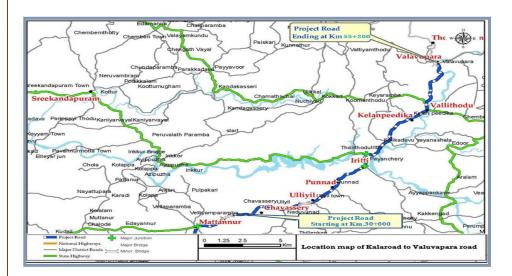
Up to end of previous Quarter ( Jan to June-2020)		This Half Yea Dec-2	• •	<b>Cumulative to end of this Quarter</b>		
Target	Achieved	d Target (as per Rev. Wp) Achieved		Target	Achieved	
67.713%	63.82%	100%	6.78%	100%	70.60%**	

\*\* Cumulative Financial progress achieved is 70.60%.

#### Key Issues (July-Dec 2020)

- Due to COVID-19 outbreak, the migrant laborers were returned to their home, acute shortage of laborers is being by the Contractor.
- 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



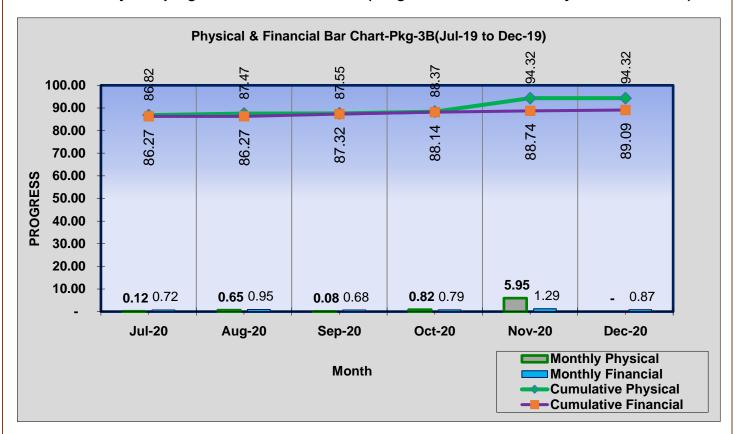
Name of Contractor	Original date of completion	Pro		Financial Progres in %(Dec -2020)	
M/s.GHV-EKK Infrastructure & Co	25-09-2018		94.32	89.09	
EOT-04- for Road Works & Major Bridges (Approved)	TOC Issued for Road works	Variation Order Value in crores (V0-1 to V0-19)	Anticipated Revised Project Cost	Billed Amount made till end of Dec-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	193.67 Cr	

EOT-06 has been granted to complete the works for Iritty Bridge along with approaches up to 31st December 2020 and Kootupuzha Bridge along with approaches up to 30th April 2021.

Taking over certificates have been issued for a) Km. 30+000 to Km.40+000 with effect from 16<sup>th</sup> March 2019 and b) Km. 40+000 to Km.55 +200 (except Bridges & its Approaches of Iritty and Koottupuzha) from 16<sup>th</sup> July 2019. Further, the Snag list has been complete and the DLP for the taken over sections have been completed. However, since the Bridgeworks and its approaches are to be completed, the Performance certificate has not been issued to the Contractor.

#### **Work Progress**

#### Cumulative Physical progress achieved is 94.32% (Progress acheived from July to Dec is 7.62 %)



Month	Till Jun'20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total
Physical -%	86.70	0.12	0.65	0.08	0.82	5.95	-	94.32
Cumulative Physical-%	86.70	86.82	87.47	87.55	88.37	94.32	94.32	
Financial -%	86.16	0.72	0.95	0.68	0.79	1.29	0.87	89.09
Cumulative Financial-%	86.16	86.27	86.27	87.32	88.14	88.74	89.09	

SI. No.	Item	Half Yearly Progress	Cumulative Progress			
1	GSB	-	23.60 Km			
2	WMM	-	23.56 Km			
3	DBM	-	23.56 Km			
4	ВС	-	23.56 Km			
	Structures					
5	Minor Bridge Ch. 3	5+405	completed			
	Uliyil bridge.					

SI. No.	Item	Half Yearly Progress	Cumulative Progress			
6	Major Bridge Ch. 42+198 Irrity bridge.	Box girder deck slab and stressing work completed for span p1 & P2.	Revised drawing for piles (6nos), Pile cap and piers for piers P1 and P2 approved. Foundation & Substructure – Completed. A1-P1, A2-P2 and P1-P2 superstructure work completed except crash barrier, handrail, expansion joint fixing and wearing coat.			
7	Major Bridge ch. 53+865 Kootupuzha bridge		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. Ministry of Environment, Forest and Climate Change (Government of India) issued NOC on 20.04.2020 for restarting the work. However, clearance from Karnataka Forest Department is still pending. The Contractor has been advised to recommence the balance works.			
8	Culverts	Nil	Box culvert- 49 Nos 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		29842m out of 30922 m.			
10	Drain (Precast + Cast in situ) placing	Nil	33380 m out of 36730m.			
11	LED Solar Street Lighting	Nil	247Nos.			
	OV Road					
	DLC		806 m			
	PQC		806 m			
	Drain		1256 m			
12	DBM & BC		200 m			
	Paver Block		2045 Sqm			
	Pazhassi Park	Finishing works including painting, turfing, etc. completed during this month.	Completed except paver block fixing at park outside area.			

Physical progress has been corrected in this Report based on the remaining works to be completed.

#### Financial Progress

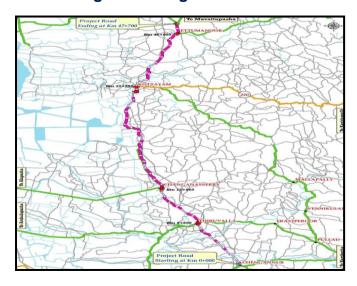
Up to end of previous (Jan - June-2020)		This Half Yearly (July - Dec-2020)		Cumulative to end of this Month	
Target	Achieved	Target	Achieved	Target	Achieved
100.00%	86.16%*	*	2.93%	100.00%	89.09%

<sup>\*\*</sup>Cumulative Financial progress is 89.09 %

#### Key Issues (July-Dec 2020)

- Stock yard for excess earth stacking to be finalised.
- In the heavy rains during the first week of August 2020, a landslide occurred and the high laying portion adjacent to roadway at Km. 42+660 LHS have slide down for a length of 30 m from a height of 12-15 m. Principal approval for construction a gabion wall for this location has been approved by the Employer.

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



Chengannur 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. The total length covered is 88 km.

The 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.

	completion	Crores	Progress in %	in %
M/s Delma SreedhanyaJv	4-11-2017	293.58	completed	completed

EOT Date (Approved)	TOC Issued date	Variation Order Value in crores	Anticipated Revised Project Cost	Billed Amount made till date
31-03-2018	01.04.2019			

Salient Features of this Package

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

Footpath, solar lights

Construction of Major Bridges - 3

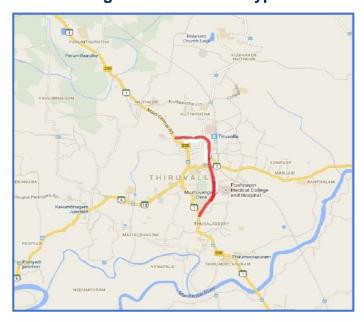
Construction of Minor Bridge - 5

New Box culverts - 9

Widening Slab culverts - 8

Reconstruction of Culverts - 59

#### 5.9 Package 4A - Thiruvalla bypass

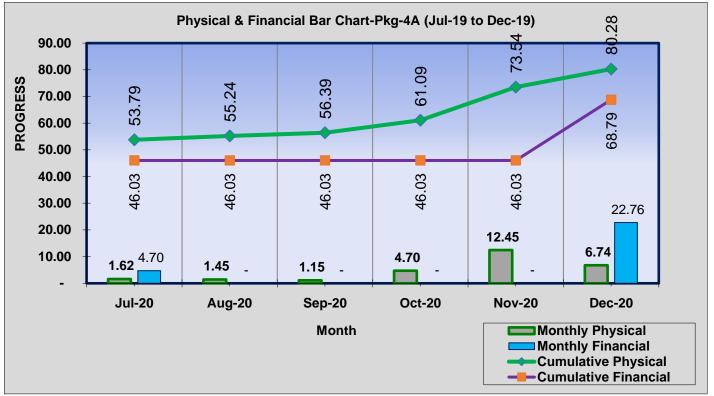


Name of Contractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Dec -2020)	Financial Progres in % (Dec -2020)
M/s.GHV-EKK Infrastructure & Co	06-10-2019	37.03	80.28	68.79
Date of commencement	EOT-01 – Approved	Variation Order Value in crores	Anticipated Revised Project Cost	Billed Amount made till end of Dec-2020 (Net Amount)
07.01.2019	31.12.2019	1.80 Cr		16.99 Cr

The date of commencement of this project is 07<sup>th</sup> January 2019 and the date of completion is 6<sup>th</sup> October 2019. Works are not completed and EOT-1 issued by the Employer for the whole project upto 30-04-2020. Further EOT-02 recommended to Employer for approval till 30 September 2020. The contractor has been applied for EOT-3 upto 31<sup>th</sup> January 2021.

#### **Physical Progress**

# Cumulative Physical progress achieved till Dec 2020 is 80.28% (*Progress acheived from July to Dec is* 28.11%)



Month	Till Jun'20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total
Physical -%	52.17	1.62	1.45	1.15	4.70	12.45	6.74	80.28
Cumulative Physical-%	52.17	53.79	55.24	56.39	61.09	73.54	80.28	
Financial -%	41.33	4.70	-	-	-	-	22.76	68.79
Cumulative Financial-%	41.33	46.03	46.03	46.03	46.03	46.03	68.79	

SI. No.	Item	Half Yearly Progress (July-Dec-2020)	Cumulative Progress
1	GSB	0.00 km	1.630 Km
2	WMM	0.00 km	1.490 Km
3	DBM	0.00 km	1.490 Km
4	ВС	0.00 km	1.700Km
5	Roadwork Details	Embankement filling work is in progress at both approaches of Viaduct.	<ul> <li>BC work from Km:0+000 to Km:1+710 has been completed.</li> <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>GSB Work completed from Km:2+150 to Km:2+220.</li> <li>Embankement filling work is in progress at both approaches of Viaduct.</li> </ul>

SI. No.	Item	Half Yearly Progress (July-Dec-2020)	Cumulative Progress
	Structures	(22)	
6	Minor Bridge at km 0+390		<ul> <li>Minor bridge structure completed by the previous contractor.</li> <li>All the remaining works completed and opened to traffic</li> </ul>
7	Viaduct from km 1+780 to km 2+016	<ul> <li>5 Nos of PSC girders has been casted</li> <li>24 Nos of PSC Girders has been launched.</li> <li>Deck slab completed at All locations</li> <li>Casting of Cross Girder completed at all locations.</li> <li>Casting of crash barrier completed for a length of 100m</li> </ul>	<ul> <li>Piling works completed. Total 60 Nos Done.</li> <li>Pile caps completed at all locations.</li> <li>Pier &amp; Piercap completed at all locations.</li> <li>Deck slab completed at all locations.</li> <li>Casting and erecting of all 36 Nos of PSc Girders Required for Viaduct has been completed</li> <li>Casting of Cross Girder completed at all location.</li> <li>Casting of crash barrier completed for a length of 100m</li> </ul>
8	Flyover at 1+300		<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 both approaches has been completed.</li> <li>Wearing coarse over Bridge, crash barrier, expansion joint works and crash barrier painting works completed and opened to traffic</li> </ul>
	Drain and F	Protective Works	completed and opened to traine
9		<ul> <li>Connection drain work from Km:2+300 to Km:2+350 is in progress.</li> <li>Reinforced earth wall fixing work at Viaduct A2 approach is in progress.</li> <li>L wall Final lift at Km:1+780 RHS has been completed.</li> <li>RR Massonry work on both side of Service road at Km:1+120 towards LHS is completed.</li> <li>1+410, LHS(A2 side approach to municipal road connection under bridge) Cross Drain work across PWD Road is in progress.</li> <li>RCC Drain relaying work at 0+050(Mazhuvangad Junction) has been completed.</li> </ul>	<ul> <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 it is partially completed.</li> <li>Metal Beam crash Barrier fixing work from Km:0+050 to Km:0+800 B/S has been partially completed.1200mdone.</li> <li>Footpath&amp; hand rail fixing work partially completed at 0+100 and flares of B1-B1 Junction</li> <li>V drain work completed from Km:1+410 to Km:1+500 B/s</li> <li>RCC drain work is partially completed at 1+410, LHS(A2 side approach to municipal road connection under bridge). Cross</li> </ul>

SI. No.	Item	Half Yearly Progress (July-Dec-2020)	Cumulative Progress
		Pipe culvert work at 2+185 is in progress Gabion wall work from Km:2+060 to Km:2+150 has been completed. Street light fixing work and A pole fixing work completed from Km:0+000 to Km:1+720.	<ul> <li>Drain work across PWD Road is in progress.</li> <li>RR Massonry work under flyover is completed.</li> <li>Reinforced earth wall casting for Viaduct A2 approach is completed.</li> <li>Reinforced earth wall fixing work at Viaduct A2 approach is in progress.</li> <li>RCC Deep drain work completed from Km:2+250 to Km:2+300,RHS.</li> <li>Widening of Culvert at Km:2+300,RHS completed upto Slab.</li> <li>L wall Final lift at Km:1+780 RHS has been completed.</li> <li>RR Massonry work on both side of Service road at Km:1+120 towards LHS has been completed.</li> <li>Connection drain work from Km:2+300 to Km:2+350 is in progress.</li> <li>RCC Drain relaying work at 0+050(Mazhuvangad Junction) has been completed.</li> <li>Street light fixing work and A pole fixing work completed from Km:0+000 to Km:1+720.</li> <li>Pipe culvert work at 2+185 is in progress</li> <li>Gabion wall work from Km:2+100 to Km:2+150 is in progress.</li> </ul>

Progress achieved up to 30<sup>th</sup> December 2020 in comparison with the original program is given in the table below:

#### Financial progress

Up to previous (Jan-June- 2020)		This Half Yearl	y (July-Dec-2020)	Cumulative upto end of this Month		
Target	Achieved	Target	Achieved	Target	Achieved	
100%	41.33%	*	27.46%	100%	68.79%**	

#### Meetings & Site Inspections

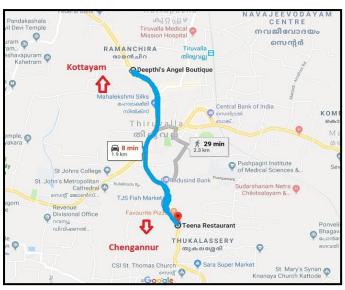
- Review Meeting held at PMT KSTP Thiruvananthapuram regarding viaduct on 02<sup>nd</sup> July 2020.
- Executive Engineer, Muvattupuzha Visited the site on 09th July 2020.
- Meeting on Google meet with PD and CE held on 21st July 2020
- Meeting held at PMT KSTP Thiruvananthapuram with PD on 03rd August 2020.
- Review Meeting on Google meet with PD and CE held on 04th August 2020
- CE, SE & EE Visited the site on 13th August 2020.

- Road Safety cell EE & AEE Visited the site on 26th August 2020.
- SE & EE, AE Visited the site on 08th September 2020.

#### Key Issues (July-Dec 2020)

- Construction of islands of the road junction at the start point (0+000) of the bypass is partially completed.
   Work stopped due to public protest.
- Deployement of manpower and equipments for remaining works to be enhanced.
- Due to public protest, gaps left on Metal Beam crash barrier as they have approached the coaurt for providing individual access to their properties. Considerig the road safety aspect gaps to be completed.
- As per the schedule, the Viaduct can be completed only by January 2021.

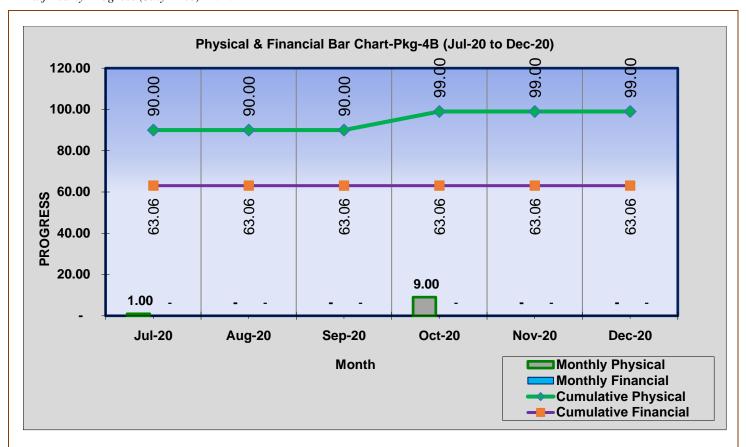
#### 5.10 Package 4B- Thiruvalla town



Name of Contractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Dec-2020)	Financial Progres in %(Dec-2020)
M/s.GHV-EKK Infrastructure & Co	06-10-2019	7.77	99.00	63.06

			Anticipated	Billed Amount made till
Date of commencement	EOT-01 – Approved	Value in crores VO-01	Revised Project Cost	end of Dec-2020 (Net Amount)
07.01.2019	15 <sup>th</sup> Dec-2019	0.202 Cr		4.84 Cr

#### **Physical Progress**



Month	Till Jun'20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total
Physical -%	89.00	1.00	-	-	9.00	-	•	99.00
Cumulative Physical-%	89.00	90.00	90.00	90.00	99.00	99.00	99.00	
Financial -%	63.06	-	-	-	-	-		63.06
Cumulative Financial-%	63.06	63.06	63.06	63.06	63.06	63.06	63.06	

SI. No.	Item	Half Yearly Progress	Cumulative Progress
1	Roadwork  (Total Length 2.010 Km)		<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 completed. 3200m completed.</li> <li>Interlock Footpath Laying work completed. 4200Sqm completed.</li> <li>Road marking and stud fixing and signboard fixing works completed.</li> </ul>

SI. No.	Item Half Yearly Progress		Cumulative Progress		
			PCC Retaining wall completed at 7+600 (22m done)		
	Structures				
2	Culverts		New RCC Box Culvert work     Completed at Rejinamundi.		
			Cast-in-situ drain work completed for 372m		
3	Drain		Drain cleaning works completed at the site. Total 1124m done.		
			<ul> <li>Cover slab replacement work completed.</li> </ul>		

Up to Previous (Jan-June- 2020)		This Half Yearl	y (July-Dec-2020)	Cumulative up to end of this Month		
Target	Achieved	Target	Achieved	Target	Achieved	
100%	63.06%	*	0 %	100%	63.06%	

The date of commencement of this project is 07<sup>th</sup> January 2019 and the date of completion is 6<sup>th</sup> October 2019. EOT-1 issued by the Employer for completion up to 15<sup>th</sup> December 2019.

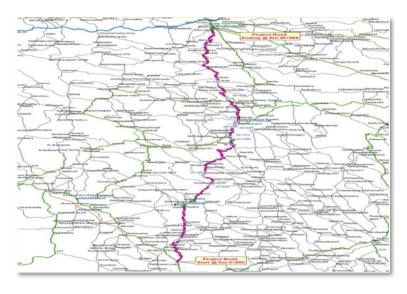
The work has been provisionally completed on 15<sup>th</sup> December 2019 and the Certificate of Completion has been issued on 29<sup>th</sup> May 2020.

Thiruvalla Town road has been inaugurated by Hon. PWD Minister on 11-10-2020

Recommended to the Employer to take over the Works.

Works as per Snag list is in progress.

#### 5.11 Package 5- Ettamanoor- Muvattupuzha



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

This work was completed including the DLP which ended on 25-02-2019. The 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. The total road length is 132 km.



Name of	Original date of	Contract Value in	Physical	Financial Progres in
Contractor	completion	Crores	Progress in %	%
M/s.GHV-EKK				
Infrastructure &	09-12-2016	227.13	Completed	Completed
Co				
EOT Date	DLP completion	Variation Order	Savings in	Billed Amount made
	date	Value in crores	Crores	to 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.

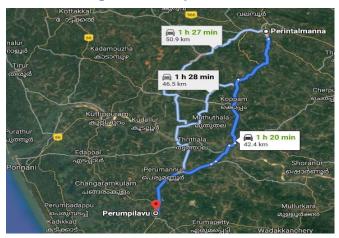
Widening - 44nos.

New Construction - 7 nos.

Drain - 65 km

This work was completed including the DLP which ended on 28-03-2018. The closure report submitted by CSC was not in accordance with the World Bank requirement. The same is being resubmitted.

#### 5.13 Package 7 -Perimpilavu -Perinthalmanna

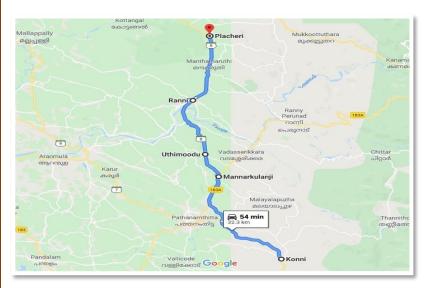


Name of Contractor	Original date of	Contract Value in	Physical	Financial Progres in	
	completion	Crores	Progress in %	%	
M/sNathconstructions	02-03-2017	8.11	100 %	100 %	
EOT Date	DLP completion date	Variation Order Value in crores	Savings in Crores	Billed Amount made to date in Crores	
NA	02-03-2018	NA	NIL	8.11	

This work was completed including the DLP which ended on 02-03-2018. The closure report submitted by CSC was not in accordance with the World Bank requirements and hence needs to be resubmitted with all data.

#### 5.14 Component A 2:

#### 5.14.1 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 the "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 is a part of the 59 roads identified by PWD under the Rebuild Kerala Initiative.

Steering Committee has approved in their 108th MOM's dated 17-09-2019 for awarding the Authority Engineer's role to M/s CEG Ltd and accordingly the agreement between KSTP and CEG Ltd was signed on the16<sup>th</sup>of October 2019. The consultants are in place and works are being supervised by M/s CEG on a day to day basis. Monthly and daily reports of each package under their scope is being mailed regularly by M/s CEG to KSTP also.

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

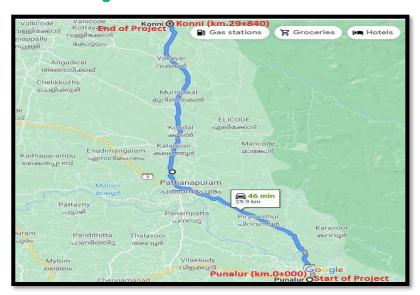
The Component A 2 of the KSTP –II was proposed between Punalur and Ponkunnam road as PPP hybrid annuity mode. For this purpose, KSTP had appointed a Transaction Advisor (TA) M/s L&T Infrastructure Engineering Ltd, Chennai to assist in designing the annuity concession.

The government of Kerala had obtained a loan of 33 USD millions in this component 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, the 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:

SI. No.	Category	Contract Package	Name of Work	Length (Km)	Constructio n Period	Mainten ance Period	
		KSTPII/PMT/UG 8A	Punalur to Konni	29.840			
1.	Category A	KSTPII/PMT/UG 8B	Konni to Placherry	30.160	24 Months	60 Months	
		KSTPII/PMT/UG 8C	Placherry to Ponkunnam	22.173			

#### 5.14.3 Package 8 A- Punalur to Konni



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'. The work has been awarded to M/s RDS Project Limited in JV with M/s Cherian Varkey Construction Co. Pvt. Ltd. with Rs 221.04 crores. LOA has issued on 28/09/2020 and the agreement executed on 27/10/2020. Initial ground works like centre line marking, surveying, fixing boundary is in progress.

#### 5.14.4 Package 8 A Status- Punalur to Konni

#### **Progress of Work**

Project Name	Upgrading Punalur to Ponkunnam road (SH 8) Package 8A: Km 0+000 (Punalur) to Km 29+840 (Konni)" on Engineering, Procurement, Construction (EPC)
Length of the Road	29.840 Km

Name of Contractor	M/s RDS-CVCC (JV)
Type of Contract	Engineering, Procurement, Construction ("EPC")
Agreement No & Date	27.10.2020
Date of Award (LOA Date)	28.09.2020
Appointed Date	17.12.2020
Construction Period (in Days)	730
Maintenance Period (in Months)	60
Scheduled Date of Completion	16.12.2020
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 0+000 to Km 82+173
Total Project Cost (in Cr)	221.04

#### The Construction Works includes

- Scarification, clearance, earthworks,
- rehabilitation of existing bridges/culverts and protective works,
- granular sub-base, wet mix macadam base course, bituminous mix surfacing,
- side drains, sidewalks,
- road markings, road furniture,
- routine maintenance and maintenance during Defects Notification Period.
- Traffic management and environmental protection measures
- Construction and maintenance of diversion roads
- Environmental and Social enhancement works/ landscaping etc., work

#### Milestone

	Description	Planned		Actual		
Project Milestone	(Days from Appointed Date)	Financial Progress (%)	Scheduled Date	Financial Progress (%)	Revised Date	Remarks
Milestone I	290	20 %	02.10.2021			Pre-construction activities
Milestone II	440.	55 %	01.03.2022			work in progress. Work programmed not
Milestone III	585	75 %	24.07.2020			submitted
Scheduled	730	100 %	16.12.2020			

Completion			

## **Physical Progress**

SI. No	Item	Scope	Work done in this month	Cumulative progress	Balance work	Remarks
	Road works					
1	Exc upto SG Top	29.840				Not yet Started
2	Rock cutting	29.840				Not yet Started
3	GSB	29.840				Not yet Started
4	WMM	29.840				Not yet Started
5	DBM	29.840				Not yet Started
6	ВС	29.840				Not yet Started
	Structure works					
1	Minor Bridge (Reconstruction)	5 Nos.				Not yet Started
2	Box culverts Reconstruction/Ne w Construction	75 Nos.				Not yet Started
3	Pipe culverts Reconstruction	6 Nos				Not yet Started
4	Slab culverts Widening	18 Nos				Not yet Started
5	Retaining/ Gabion / Toe Wall Length (in M)	8.07 Km				Not yet Started

Compone ge in % to the	Weighta	Sub Component wise progress during the month			Component wise -Physical Progress (%) Cumulative, Up to Current Month		
	to the Contract	Sub Component	% Weighta ge	%Progre ss	Durin g Curre nt Month	Up to previou s month	Cumulativ e, Up to Current Month
		Widening and strengthening of existing road					
		Earthwork up to top of subgrade	0.60%				
		Rock cutting	3.41%				
		Granular Work (sub-base, base, shoulders)	33.37%				
		Bituminous work	22.39%				
		Paver Block	5.53%				
Road works	52.59%	Widening and repair of culverts	1.34%				
Works		Widening and repair of minor bridges	5.96%				
		New 2-lane realignment / bypass					
		Earthwork up to top of subgrade	0.49%				
		Rock cutting	2.11%				
		Granular Work (sub-base, base, shoulders)	7.93%				
		Bituminous work	4.22%				

		Paver Block	0.68%		
		New Culverts, minor bridges,	0.0070		
		under passes, over passes			
		on existing road,			
		realignments, bypasses:			
		Culverts	0.14%		
		Reconstruction of culverts,			
		minor bridges, underpasses, overpasses on existing road,			
		realignments, bypasses:			
		Culverts	9.84%		
		Minor Bridges	1.99%		
		Road side drains	45.59%		 
		Road signs, markings, km stones, safety devices, Road Appurtenances	3.76%		
		Bus Bye	2.13%		
		Bus Shelter	0.90%		
		Truck lay bye	0.00%		
		Turfing, Kerb, W' Metal Beam Crash Barrier, Pedestrian Guard Rails	8.22%		
Other works	47.41%	Safety and traffic management during construction	0.02%		
		Junctions	5.48%		
		Retaining wall	14.53%		
		Footpath, Utility culverts, utility ducts, Roadside Lighting, site clearance, and General Items	19.33%		
		EMP Works and Monitoring of Environment Attributes, ESHS requirement.	0.03%		
		Sub Total C	99.990%		
	100.00%	Total Amount (A+B+C) =			

#### **Current issues**

- 1. Not submitted work programme.
- 2. Delay in Design & Drawings submission.
- 3. Applicable permits status not submitted.
- 4. Man power & mobilization status not submitted

#### 5.14.5 8B - Konni - Placherry



This road is proposed to be taken up as Package 8 B with a project length of 30.16 km. 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.

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, the agreement was signed with the contractor on 22.08.2019. The duration of the construction works is 24 months with a maintenance period of 5 Years. Initial preparatory work on this stretch has been commenced by the Contractor and work is in progress on 01.11.2019.

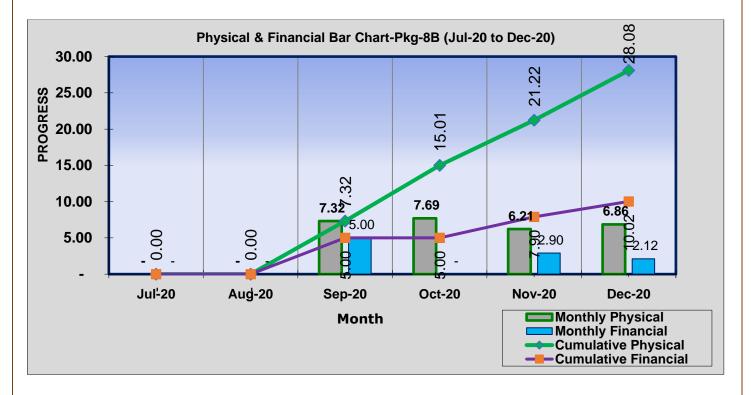
#### 5.14.6 Package 8 B Status – Konni to Plachery

#### **Progress of Work**

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

Name of Contractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Dec-2020)	Financial Progres in %(Dec-2020)
M/s.EKK Infrastructure	29.10.2021	279.00	28.08%	10.02 %
Date of commencement	EOT- Approved	Variation Order Value in crores	Anticipated Revised Project Cost	Billed Amount made till end of Dec-2020 (Net Amount)
01.11-2019				27.96 Cr



Month	Till Jun'20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total
Physical -%	•	•	•	7.32	7.69	6.21	6.86	28.08
Cumulative Physical-%	-	-	-	7.32	15.01	21.22	28.08	
Financial -%	-	-	-	5.00	-	2.90	2.12	10.02
Cumulative Financial-%	-	-	-	5.00	5.00	7.90	10.02	

#### Milestone

Project Description Planned	Actual	Current	Remarks
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Milestone	(Days from Appointed Date)	Financial Progress (%)	Scheduled Date	Financial Progress (%)	Revised Date (EOT-1)	Status	
Milestone I	290	20%	15.08.2020	20%	27.11.2020 (EOT-1)	Achieved	
Milestone II	440.	55%	12.01.2021	28.08 %	26.04.2021 (EOT-1)	Work in progress	Revised Programmed not
Milestone III	585	75%	06.06.2021	18.09.2021			submitted
Scheduled Completion	730	100%	29.10.2021		10.02.2022		

## Physical Progress (Physical Progress from July- December 2020 is 28.08 %)

		Sub Component	wise progress month	Component wise -Physical Progress (%)			
Component Weightage		Sub Component	%weightage	%Progress	During Current Month	Up to previous month	Cumulative, Up to Current Month
		Up to Subgrade	2.08%	0.161			
		Rock cutting	5.90%	5.147			
		GSB (subbase, base, shoulders)					
		GSB	18.509%	1.401			
		WMM	21.919%				
		Shoulder	0.162%				
		Bituminous work					
		DBM	14.902%				7.396
Road Work	45.18%	BC	11.708%		1.698	5.698	
		Paver block	5.90%		1.090		
		Widening and repair of culverts	2.04%				
		Widening and repair of minor bridges	0.76%				
		New culverts	1.06%				
		Reconstruction of culverts	13.08%	9.662%			
		Reconstruction of minor bridges	1.98%				
Major		Foundation	19.03%				
Bridge works,		sub structure	14.47%				
works, under passes, overpasses, and ROB/RUB	0.77%	Super structure (including crash barrier etc. Complete)	66.51%				
		Road Side Drain	36.36%	19.120 %			
Other	54.05%	Road signs, markings, km stones, safety devices, road appurtenances	2.24%		4.862	15.823	20.685
Works	2 20,0	Bus bays	1.23%				
		Bus shelters	0.53%				
		Turfing, kerb, W- metal beam crash barrier,	7.42%				

		pedestrian guard rails					
		Safety & Traffic Management During construction	0.01%				
		Junctions	2.21%				
		Retaining wall	36.19%	19.150%			
		Foot path, utility culverts, utility ducts, roadside lighting, site clearance, an general items	13.72%				
		EMP works and monitoring of environment attributes, ESHS requirement	0.09%				
Total	100%				21.221	6.860	28.081

SI. No	Item	Scope	Work done in this month	Cumulative progress	Balance work	Remarks
	Road works					
1	Exc upto SG Top	29.99	1.659	2.32	27.67	Work in progress
2	Rock cutting	29.99	0	26.16	3.83	Work in progress
3	GSB	29.99	1.609	2.27	27.72	Work in progress
4	WMM	29.99			29.99	Not yet Started
5	DBM	29.99			29.99	Not yet Started
6	ВС	29.99			29.99	Not yet Started
	Structure works				0	
1	Major Bridge	1 Nos.				Not yet Started
2	Minor Bridge	3 Nos.				Not yet Started
3	Culverts	98 Nos.				
	Pre-cast Culverts (Casting)		13.5 Nos	86.5 Nos.	11.5	Work in progress
	Culverts (Laying +Cast-in situ)		7.5 Nos	45.5 Nos	52.5	Work in progress
4	RCC Drain ((Pre- Cast &Cast-in situ)	25780m	2869 m	11922 m	13858	Work in progress
5	Toe wall /Gabion, RCC Retaining wall	6950 m	0.798 m	3678 m	3272	Work in progress

Up to end of previous (Jan- June-2020)		This Half Yearly (July-Dec -2020)		Cumulative to end of this Month (December-2020)		
Target	Achieved	Target	Achieved	Target	Achieved	
*	(0 %)		28.08		(28.08 %)	

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 Footpath     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 from (July to Dec- 2020)

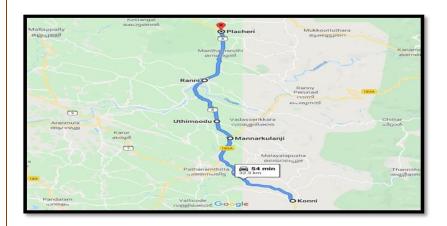
- The process for utility shifting needs to be done expeditiously so that works are not be hindered for want of shifting of utilities.
- Commencement of Construction Activities delayed due to COVID 19 Lockdown.
- Slow Progress of works due to Poor & Improper Planning and Programme.
- Revised Work program submitted by taking 6 months EOT. Advised the contractor to submit the EOT application separately.
- Slow work progress
- Feasibility report for structures not submitted
- ROW & Chainage pillars erection
- Delay in Establishment of WMM&HM Plants
- Only Four Precast moulds are available for Box Culvert at the precast yard, instructed to increase the moulds to get the better progress.
- Only 24 Precast moulds are available for RCC Drain casting at the precast yard.
- Inventory of PAP issues not finalised.

#### 5.14.7 Package 8 C- Placherry to Ponkunnam

Three bids were received against this tender as per the table below.

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 the 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 since December-2019.

## 5.14.8 Package 8 C Status –Plachery-Ponkunnum

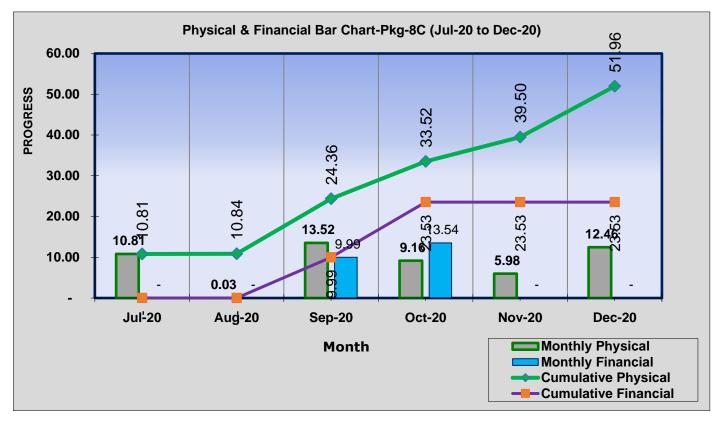


## **Progress of Work**

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	23.12.2019
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

Name of Contractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Dec-2020)	Financial Progress in %(Dec-2020)
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M/s Sreedhanya & Nath Infrastructures	21.12.2021	248.630	51.96 %	23.53 %
Date of commencement	EOT- Approved	Variation Order Value in crores	Anticipated Revised Project Cost	Billed Amount made till end of Dec-2020 (Net Amount)
23.12.2019				58.52 Cr



Month	Till Jun'20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total
Physical -%	-	10.81	0.03	13.52	9.16	5.98	12.46	51.96
Cumulative Physical-%	-	10.81	10.84	24.36	33.52	39.50	51.96	
Financial -%	-	-	-	9.99	13.54	-	-	23.53
Cumulative Financial-%	-	1	1	9.99	23.53	23.53	23.53	

#### Milestone

	Description	Pla	nned	Act	ual		
Project Milestone	(Days from Appointed Date)	Financial Progress (%)	Scheduled Date	Financial Progress (%)	Revised Date	Current Status	Remarks
Milestone I	290	20%	07.10.2020	20.00 %		MS-1 Achieved	Revised work programme not
Milestone II	440.	55%	06.03.2021	51.96 %		Work in progress	submitted

Milestone III	585	75%	29.07.2021		
Scheduled Completion	730	100%	21.12.2021		

## Physical Progress

Physical Progress from July- December 2020 is 51.96 %.

	%	Sub Component w	rise progress o	luring the	Comp	onent wise Progres	
Componen t	Weightag e	Sub Component	%weightag e	%Progres s	During Curren t Month	Up to previou s month	Cumulative , Up to Current Month
		Earth work Up to Subgrade	1.10%	0.572			
		Rock cutting	10.74%	10.462	1		
		GSB	13.186%	6.987			
		WMM	15.615%	5.621			
		Shoulder	0.114%				
		Bituminous work					
		DBM	11.092	1.483			
		BC	8.716				14.510%
		Paver block	4.07%			10.286%	
		Widening and repair of culverts	0.68%				
Road Work	40.30%	Widening and repair of minor bridges	2.02%		4.224		
		B. New 2 lane realignment/bypas s					
		Earth work Up to Subgrade	0.77%				
		Rock cutting	3.01%	3.01			
		GSB (subbase, base, shoulders)	9.62%				
		Bituminous work	4.95%				
		Paver block	1.54%				
		New culverts	0.80%	0.60			
		Reconstruction of culverts	9.47%	7.273%			
		Reconstruction of minor bridges	2.51%				
Major		Foundation	19.01%				
Bridge works,		Sub structure	14.50%				
under passes, overpasses, and ROB/RUB	Super structure (incl. crash barrier etc. Complete)	66.49%					
-		Casting of Drain (80%)	15.392%	15.242%			
		Laying of Drain (20)	3.228%	1.325%			
Other Works	58.54%	Road signs, markings, km stones, safety devices, road appurtenances	1.99%		8.242	29.205%	37.447%

	%	Sub Component w	rise progress o	luring the	Component wise -Physical Progress			
Componen t	Weightag e	Sub Component	%weightag e	%Progres s	During Curren t Month	Up to previou s month	Cumulative , Up to Current Month	
		Bus bays	0.77%					
		Bus shelters	0.33%					
		Turfing, kerb, W- metal beam crash barrier, pedestrian guard rails	5.68%					
		Safety & Traffic Management During construction	0.02%					
		Junctions	2.13%					
		Retaining wall	59.05%	47.402				
		Foot path, utility culverts, utility ducts, roadside lighting, site clearance, and general items	9.02%					
		EMP works and monitoring of environment attributes, ESHS requirement	0.03%					
Total	100%						51.959	

SI. No	Item	Scope	Work done in this month	Cumulative progress	Balance work	Remarks
	Road works					
1	Exc upto SG Top	22.173	3.30	10.678	11.495	Work in progress
2	Rock Cutting	22.173	0	21.642	0.531	Work in progress
3	GSB	22.173	4.50	10.878	11.295	Work in progress
4	WMM	22.173	6.890	7.390	14.783	Work in progress
5	DBM	22.173	2.745	2.745	19.428	Work in progress
6	вс	22.173			22.173	Not yet Started
	Structure works					
1	Major Bridge	1 Nos.				Not yet Started
2	Minor Bridge	3 Nos.	1 Nos. work in progress		2 Nos	1 Nos. work in progress
3	Culverts	82 Nos.	3 Nos	56 Nos.	26	Work in progress
4	RCC Drain ((Pre- Cast &Cast-in situ)	14800 m	950	6077 m	8723	work in progress
_	Toe wall /Gabion, RCC	0400	050	4004	1219	
5	Retaining wall	6180 m	950 m	4961 m		work in progress

Up to end of previous (Jan-June- 2020)			f Yearly (July-Dec)- 2020 Cumulative to end o		
Target	Achieved	Target	Achieved	Target	Achieved
*	0	*	51.96	100*	(51.96 %)

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 Footpath cum Drain)		
	Length (km)	% Total Length		Length (km)	% Total Length		Length (km)	% Total Length	
Total Length	22.173	100%	Total Length	22.173	100%	Total Length	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 from (July-Dec- 2020)

- The process for utility shifting needs to be expeditiously so that works are not hindered for want of shifting of utilities.
- Contractor not providing proper safety at work locations.
- The work program has been submitted with considering the EOT, but it should be revised after getting approval of EOT.
- GAD/Working Drawings Not submitting.
- Poor workmanship was observed at Gabion wall construction locations.
- Poor Workmanship observed at structural Works locations.
- Need to expedite the Utility shifting works.
- Poor workmanship observed at Gabion wall & structural Works construction locations

#### 5.15 Component B: Road Safety Component

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

- a. To strengthen the capacity of the 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 Multi-sectoral 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 a high density of traffic. This work is in progress.

- 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 stakeholders' 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 College, 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, for various positions was completed. 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 monitoring the Challenge Fund proposals and coordinating activities of the SCDP Road Project.

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 future road geometrics requirements, capacity analysis, seasonal variations, and daily variations of traffic volume during festivals, etc.

KSTP has entrusted the consultant to take action for the procurement of Market Research firms. The market research would support the 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 have been completed.

The procurement of consultancy services for appointment of firms for Traffic Safety Enforcement and Post Crash Training (trauma care) for the Safe Corridor are in progress aimed at training the Police personnel and for enhancing trauma care facilities in hospitals in the nearby areas of the SCDP. These are expected to be completed by the end of August 2018. The project proposals fixing the last date of submission on 13.11.2018 under the challenge fund program received from Kozhikode District have 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 was 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 is being implemented.

To validate the effectiveness of road safety improvements and under Component B, KSTP decided to implement a project exclusively as a "Safe Corridor Demonstration Project" hereinafter referred to as SCDP. The stretch selected was the Khazakuttom- Adoor Section running a length of 78.65 km. 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 Liability 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 equipment 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 the 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 8	Level III	I		I
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	dget proposal (in Lakh)			28.21. Cr.

The proposal is taken up as four activities as follows and approved by the 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 6.306 Cr
- 3. Procurement of Advanced Life Support Ambulances (2 nos.) equipped with multiple state of the art life-saving equipment for General Hospital, Ayoor and Taluk Head Quarters Hospital, Kottarakara Rs 63.9 Lakhs
- 4. 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.2.50cr

All the activities are coming under the Post Review Threshold of the World Bank.

#### The current status

a. Ratify approval accorded to KMSCL to award the work of Medical Gas pipeline system for

Government Medical College, Trivandrum to M/S Blaze Systems at a total cost of Rs. 38,39,393,60/-following their procedures.

- b. Extension of time may be granted for KSTP II- Road Safety Capacity Building and Program Management-Strengthening Trauma Care services on Safe Corridor Demonstration Project Electrification of Trauma Care ICU and Oxygen Gas Plant at Taluk Headquarters Hospital, Kottarakara-part-II- SITC of 3TP Verticool Air Conditioner upto 30-10-20 without imposing fine.
- c. Extension of time may be granted for KSTP II- Road Safety Capacity Building and Program Management-Strengthening Trauma Care services on Safe Corridor Demonstration Project (Kazhakuttom to Adoor)-Govt. Medical College, Thiruvananthapuram Electrification in Trauma Care unit Ward No. 7 and 8 at Medical. College, Thiruvananthapuram Part-II-Air Conditioning upto 31-01-2021without imposing fine.
- d. Extension of time may be granted for KSTP II- Road Safety Capacity Building and Program Management-Strengthening Trauma Care services on Safe Corridor Demonstration Project Electrification of Trauma Care ICU and Oxygen Gas Plant at Taluk Headquarters Hospital,
  - Kottarakara-Part-I- Electrical Work upto 30-11-2020 without imposing fine.
- e. Extension of time may be granted for KSTP II- Road Safety Capacity Building and Program Management-Strengthening Trauma Care services on Safe Corridor Demonstration Project Electrification of Trauma Care ICU and Oxygen Gas Plant at Taluk Headquarters Hospital, Kottarakara-Part-II-
  - SITC of 3TR Vertical Air Conditioner upto 30-10-2020 without imposing fine.
- f. Extension of time may be granted for KSTP II- Road Safety Capacity Building and Programme Management Strengthening Trauma Care Services on Safe Corridor Demonstration Project—Renovation of Trauma care Building of General Hospital, Adoor upto 31-12-2020 without imposing fine.
- g. These are the final extensions. No further extension will be granted and a fine will be imposed beyond the dates mentioned above.

#### 5.15.2 Traffic Enforcement & Crash Data Management System

#### **5.15.2.1** Traffic Enforcement:

The Safe Demonstration Corridor Project (SCDP) from Vettu road Junction near Kazhakoottam to Adoor on MC Road (SH1) is identified as a high risk and high-volume corridor for implementing the program. It envisages several road safety interventions and countermeasures to reduce fatalities and injuries due to road crashes in "4E" concepts i.e., Engineering, Enforcement, Education, and Emergency Trauma Care. The program will implement multi-sectoral road safety initiatives by associating with other stakeholders' departments like Police, MVD, PWD, and Health in establishing a sustainable road safety model that can be replicated elsewhere in the state with the view of achieving a 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.

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 strategy. The consultant had reviewed various available reports such as the iRAP study, baseline study conducted by NATPAC, seat belt, 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 on crash locations and profiles of blackspot and vulnerable locations, road user category, enforcement programs, equipments,

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.

To manage and control traffic most safely and effectively in the corridor through the scientific application of systems and techniques, a two-day training for 27 Police officers and 7 MVD officers as trainers from the 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.

#### **5.15.3 Crash Data Management System:**

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.

To reduce the road crash, KSTP has appointed M/s TRL to develop and implement an evidence-based road safety enforcement strategy. The police department has informed that as part of the outcomes related to the 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 licenses 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, the Police department has forwarded the details of iMAAP solution received from M/s TRL to consider under KSTP II.

M/s TRL has offered a proposal for iMAAPcloud 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 the 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.

**Staus**: TRL has submitted the draft final report with crash data analysis, Traffic enforcement plan, and specifications for enforcement equipments. KRSA has to review this draft and revert.

#### **Purchase of enforcement equipments:**

Procurement of Enforcement Equipments for police on SCDP-Electrical to submit through tender notice such as Light Baton Signal, LED Portable Flood Lights & Traffic Signs Collapsible has been completed.

# 5.15.4 Road Safety Education, Community Awareness and Training Programme and Outdoor campaign on the Safe Conidor Demonstration Project (SCDP)

This supplementary agreement is executed on this the day 28" of June 2019 BETWEEN the Project Director, Kerala State Transport Project, PMT, Thiruvananthapuram, and the Director, KSCSTE, National Transportation Planning, and Research Centre - A unit of Kerala State Council for Science, Technology, and Environment (KSCSTE), Government of Kerala.

SCDP envisages several road safety interventions and countermeasures to reduce fatalities and injuries due to road traffic crashes. One of the sub-components of the project would be to impart knowledge in Traffic rules Road Safety and basics of First aid and Life support among local community School Children, Drivers, and youth within and outside the protected area. This Programme is expected to bring about good road sense and qualitative changes in road user behavior of different categories of road users and their attitude towards the accident victims in helping them giving First aid and transportation to the hospital in time.

It is proposed to carry out six Programmes one each at the following six police stations with 50 participants per Programme :( i) Pothencode, ii) Venjaramoodu, iii) Kilimanooriv) Chadayarmangalarnv) Kottarakkar & vi) Adoor

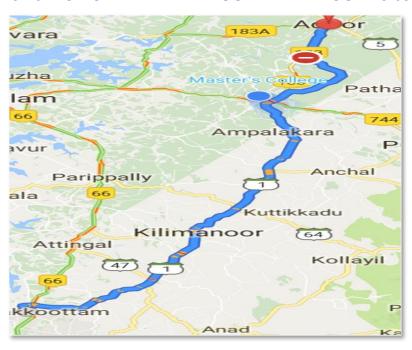
#### The objective of the program is:

- a) To provide road major safety education/awareness by film shows, stickers, and distributions of pamphlets at major junctions.
- b) To organize public meetings in association with LSGD and police and NGOs in the respective area/ task/audio-visual shows on road safety and safety measures/traffic control devices in major junctions, accident-prone areas, and townships in road stretch.
- c)To display banners /wall posters depicting road safety slogans in public places, offices, educational institutional, and bus stands.

The total duration project is 12 months as per ToR which is estimated to cost around 32 lakhs.

**KSCSTE-NATPAC-**has expertise in providing road safety education to various categories of road users. As part of the present assignment, it is decided to conduct 40 Programmes covering four inputs groups. The Interim Report-2 has been submitted by the NATPAC, which is comprising of the details on 30 programs conducted for this project.

#### 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. 276/KSTP/PMT/PWD/2016 dated 05/12/2016
Agreement No & Date	(Contract. No. KSTP/PMT/BCO&RS)
DateofCommencement	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 30.09.2020
Contract Amount	Rs 146,67,38,745/-
Revised Project Cost	Rs .137,88,30,271/-* (* denotes Subject to change in variation)

#### Financial Progress.

The Financial progress is 90.42% as of 30-12-2020 in with respect to the Revised Estimate of 137.88 Cr. As Per Original Contract Price Financial Progress is 84.83%. The total amount paid to the Contractor till December 2020 is 124.43 Cr.

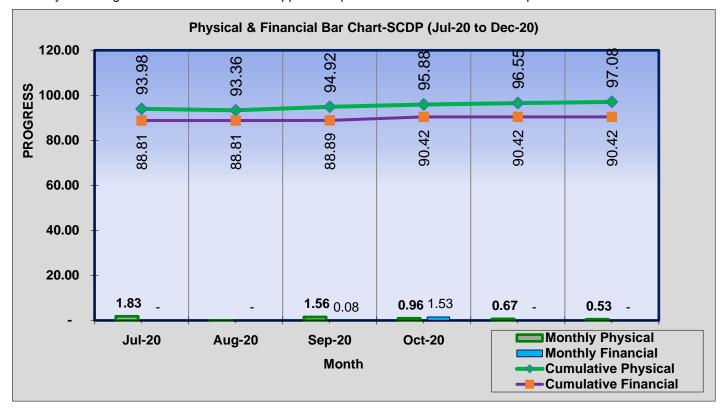
	SCDP - PHYSICAL PROGRESS OF MAJOR CIVIL WORKS DECEMBER-2020							
				Quantity				Remarks
SI No	ltem	Unit	As per BoQ	As per variation	Anticipated Qty	Completed	Balance	
1	Drain	m	6274	14488	15100	15760	-660	On going Quantity Increase
	Culvert	No						
	New- Box		10	14	14	14	0	Completed
2	Hume Pipe			1	1	1	0	Completed
	Widening			3	5	5	0	Completed
	Minor Bridge			1	1	1	0	Completed
	Total			19	21	21	0	
	Retaining Wall	$m^3$						
3	R R		8847	1543	2847	2698.30	6148.70	
	Gabion		0	6085	6085	5890	195	
4	DBM	m <sup>3</sup>	9524	9818	11100	11225.44	-1701	
5	вс	m <sup>3</sup>	39396	39396	42000	42375	-2979	
6	Interlocking blocks	$m^2$	58988	16723	13707	11495	47493	
7	RCC	$m^3$	8036.8			6229.20	1807.61	

### SCDP - PHYSICAL PROGRESS OF MAJOR ROAD SAFETY WORKS - DECEMBER-- 2020

SI					Quantity	/		
No	Item	Unit	As per BoQ	As per variation	Anticipate d Qty	Completed	Balance	Remarks
1	Drain cover slab	m <sup>3</sup>	49478		54469	54469	-4991	On going
2	W Beam Crash barrier	m	15015	8295	9141	0	15015	On going
3	Road Marking	m <sup>2</sup>	81726	70523	57061	53162	28564	On going
4	Road Studs	E	56437	56654	68950	76850	-20413	On going Quantity Increase
5	Sign Boards	E	9873	9873	3931	2077	7796	On going
6	LED Solar Street light	Е	2000	1127	890	844	1156	On going
7	Kerb 250 mm	m	211052	16747	31000	26061	184991	Ongoing at junctions
8	Kerb 100 mm	m	42211	46775	12500	11491	30720	Ongoing at junctions
9	Antifungal Designer Tile	m <sup>2</sup>	23610	68420	43000	43154.75	-154.75	Ongoing at junctions
10	Hand Rail	m	21400	20900	19328	20203	1197	Ongoing at junctions

#### **Physical Status:**

The Physical Progress is 97.08 %.EOT was approved up to 30-09-2020 with LD to complete all the balance works.



Month	Till Jun'20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total
Physical -%	92.15	1.83	- 0.62	1.56	0.96	0.67	0.53	97.08
Cumulative Physical-%	92.15	93.98	93.36	94.92	95.88	96.55	97.08	
Financial -%	88.81	-	-	0.08	1.53	-	-	90.42
Cumulative Financial-%	88.81	88.81	88.81	88.89	90.42	90.42	90.42	

#### Key Issues from (July to Dec- 2020)

- Contactor has finished EOT on 30th September 2020
- They are doing balance work with LD charges

#### 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.

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 reconfirm 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 estimated costs are tabulated in Table 4 below.

Table 4

Road no	Name of Road	Estimated Cost in Crores	Revised Cost in Crores	Length in Km	District
KSTP-II/CF-1	Pavangad-Korapuzha	10.02	5.65	25	Korapuzha
KSTP-II/CF-2	CF-2 Safe Road Project-Trivandrum Medical college -Kannamoola, Pallimukku-Pettah		4.91	5	Trivandrum
KSTP-II/CF-3	Kottiyam-Kundara Road	4	16.14	11.7	Kollam
KSTP-II/CF-4	Vypin-Mannambam	5	29.69	25.18	Ernakulam
KSTP-II/CF-5 Thrissur-Kunnamkulam State Highway		10	39.09	5.5	Thrissur
	Total	36.52	95.51	72.38	

#### Status of the project for this month (Dec- 2020)

- Field investigation completed
- Topographic survey for 25 major junctions.
- Road Inventory survey
- Turning Movement Count surveys for 25 major junctions.
- Speed and Delay survey for all the five corridors.
- Parking survey for all the five corridors.
- LUX meter survey for all the five corridors.
- Accident data for all the five corridors.
- Strip Plan preparation was completed for all the Five Corridors.
- Improvement Proposals as per the scope of work completed for two roads.
- Field Study Report will be submitted on 05.03.2020
- Draft DPR was submitted on 18.03.2020
- PMC has reviewed and passed comments on Draft DPR on 30.04.2020.
- The Final DPR was submitted.
- Bid Document Submitted.

From Table 4, Road No 1 Pavangad-Korapuzha work was awarded by KSTP in 2019 and execution taken charge by Ex Engg NH Division. The agreement for this work was signed vide No 304/KSTP/PMT/PWD/2019 Dated 08-03-2019 and awarded to M/s NATH Infrastructure for Rs 8,36,63,500.00 with a completion time of 12 months.

The details and drawings as prepared by DPR Consultant now M/s EGIS is submitted to NH Ex Engg on 27<sup>th</sup> Aug 2020 for implementation. The table below gives an abstract view of this work:

SI. No.	Package	Description of Road	Length (Kms)	Name of work	Supervising agency	Date of commenc ement	Time of completion as per agreement	Date of completion	Extended date of completion/Actual date of completion	DLP period
1	KSTP- II/Challe nge Fund	KSTP/1659/2019-AE6- Road Safety Measures to Pavangad-Korapuzha Road -CH.233/500 to CH.239/000 in NH 66- Kozhikode District		KSTP/1659/2019-AE6- Road Safety Measures to Pavangad-Korapuzha Road -CH.233/500 to CH.239/000 in NH 66- Kozhikode District	PWD National Highways Division, Kozhikode	27.05.2019	12 months from the date of commence ment.	26.05.2020	31.12.2020	365 days

Road No 5 - Thrissur-Kunnamkulam State Highway is dropped from Challenge fund as this work is being taken up under RKI works of KfW funding Package 4. Only three roads viz: Road # 2 , # 3 & # 4 were to be tendered. Accordingly, these three works were re-tendered on **etender Kerala portal** on 22-12-2020 with the Last Bid Submission date being 05-01-2021. After pre-Bid query from one of the Bidders was received for Road No 2, it was seen that there were some discrepancies in the Items specifications and hence the tenders were canceled and withdrawn. These were to be corrected and re-submitted by DPR Consultants M/s EGIS and the corrected ones were received on 13<sup>th</sup> November 2020. After due checks, these are being uploaded on the e-tender portal on 22-12-2020 with a last date of Bid Submission as 05-01-2021. The bids have been received for One Road. The details of bidders are listed below.

Sl.No.	Name of Roads	Name of Bidder ( I st Tender)			
1	CF-Road 2	1. Mr. Nizamudeen , Thoppil Constructions			
2	CF-Road 3	1. M/s. Palathra Constructions			
		2. M/s. Thoppil Contractors India Pvt Ltd			
3	CF-Road 4	M/s. Thoppil Contractors India Pvt Ltd			

Sl.No.	Name of Roads	Name of Bidder ( II nd Tendered on 22.12.2020)
1	CF-Road 2	Nil
2	CF-Road 3	Nil
3	CF-Road 4	1. M/s. Palathra Constructions

The details of these works tendered are as below mentioned Table:

	Challenge Fund Roads -Tendered in December 2020										
Road. No	Stretch of the Project Road	Length (Km.)	Tendered Cost of the Project (Cr. incl GST)	District	Bid opened date	Bid response	Status				
2	Medical College- Kannamoola- Pallimukku-Pettah	3.80	5.15	Trivandrum	16.11.2020	No Bid received	Evaluation				
3	Kottiyam-Kundara Road	11.70	17.02	Kollam	16.11.2021	No Bid received	completed and Non				
4	Vypin-Munambam	25.18	31.43	Ernakulam	16.11.2022	1 Bid received	resposive				
	Total	40.68	53.60								

Total Cost in US Million	7.15
Conversion of USD to Rs is 1:7.1 Rs	
GOK's share in Crores with 56 % WB Funding will be	28.42

The roads are proposed for III Retender as per Table below with the following revised conditions and is in progress.

Challenge Fund Roads -Tendered in Octobe	er 2020
--	---------

Road .No	Stretch of the Project Road	Length (Km.)	Tendere d Cost of the Project (Cr.)wit h GST	No of Months for	District	Suggested Modificatio n in Constructio n Months	Suggeste d Action
2	Medical College- Kannamoola- Pallimukku-Pettah	3.80	5.15	3	Trivandru m	4	Retender
3	Kottiyam-Kundara Road	11.70	17.02	3	Kollam	9	Retender
4	Vypin-Munambam	25.18	31.43	6	Ernakulam	9	Retender
	Total	40.68	53.60				

#### 5.18 Component C: Institutional Strengthening Component – Current Status

#### 5.18.1 Road Sector Modernization

Under this Component C, KSTP has 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 the 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)

Accordingly, KSTP, under PWD, GoK has appointed Deloitte Touche Tohmatsu India LLP, in joint venture with Consulting Engineers Group Ltd., to provide consultancy services for developing an Institutional Strategy and Action Plan for the creation of "Centre/s of Excellence/s" for the Kerala Road Sector across five identified thematic areas. The Contract Agreement was signed on 16th February 2019 and the Consultant's Team was mobilized on 1st March 2019.

The Consultancy services were provided in two phases as below:

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

The five thematic areas covered under this study were as follows:

1. Innovation in design/ construction practices

- 2. Road asset management
- 3. Road safety management
- 4. Quality assurance & contract management.
- 5. Promoting indigenous research and development.

#### Overall Approach and Methodology

A multidimensional, consultative approach was adopted during the execution of this study. As part of this study, the steps carried out were

- a) A detailed diagnostic of the processes of PWD and the associated entities,
- b) An in-depth study of KHRI and NATPAC,
- c) A benchmarking study across national and international Centres of Excellence in the related sector and
- d) Consultations with stakeholders during the study. Based on all inputs obtained, recommendations have been made on the proposed Centre of Excellence.

As part of this study, eight reports (including this report) were required to be submitted and these are as below:

S.No.	Deliverables
1	Inception Report
2	Report on Diagnostic Review
3	Draft Report on Institutional Options
4	Report on Institutional Review –KHRI & NATPAC
5	Report on 1st Stakeholder Workshop
6	Report with recommendations on the proposed CoE
7	Report on 2nd Stakeholder Workshop
8	Final Report on Institutional Framework & Action Plan for COE
9	Preparation of Cabinet Note and presentation to PWD/ GoK – to be submitted based on final discussions with the KSTP team.

Deloitte Touché Tohmatsu India LLP in JV with Consulting Engineers Group as Consultants for this study have submitted the following reports.

- 1. Inception Report-The Report covers the understanding of the 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 asis 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

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 the 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.

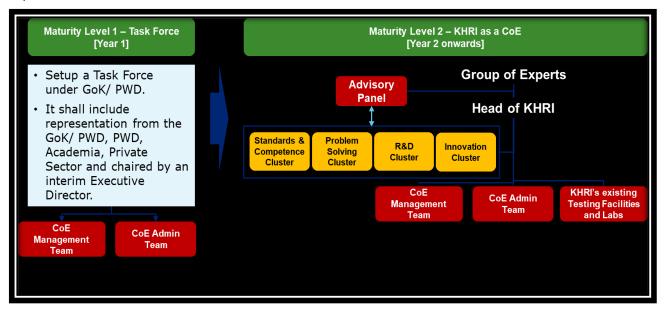
#### Generic Activities of CoE

- Mapping of emerging issues and requirements
- Developing a Foresight & Vision
- Identification of Strategic Research Agenda [continual]
- Implementation Plan [from time to time]
- Developing and promoting researchers
- Facilitation technological innovation system to apply research results into application
- Dissemination of Research & Innovation Results [manual, periodic updates through publications]
- Creating Knowledge Sharing Platform
- Ensuring Stakeholders Participation

It is recommended that the entity be established in phases i.e, It first begins as a Task Force and then over time evolve into a full-fledged autonomous entity. The governance model of the CoE also would therefore follow this maturity model. In the exhibit below, a two-level maturity setup is shown. It is to be noted that the two levels are not time-dependent but are dependent on the success of the CoE and decision by the Government of Kerala with recommendation from Task Force.

#### Structure of CoE

The CoE is proposed to be a lean, thin, and almost virtual entity, to be developed and expanded in phases of maturity, the first being as a Task Force, which will run over the first one year. The composition of this Task Force is depicted in the chart at Annex 1.



The setting up of CoE involves expenditure of fixed and variable nature; the fixed cost will remain almost fixed subject to normal annual increase, while variable expenses will be related to the volume and nature of works undertaken by CoE. The total expenditure envisaged over 5 years is Rs. 31 Crore. This includes a research fund of Rs. 7 Crore that is also envisaged. The 8th deliverable & 9th deliverable sent to GoK on 15.05.2020. Due to the pandemic, an extension for COE service up to 30/12/2020 has to be proposed.

#### 5.18.3 Road Maintenance & Management Services

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

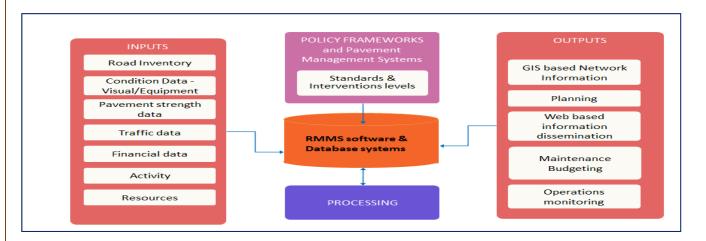
#### **Objective**

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 can 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 has 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 was no established framework and expertise in the Department to have a sustained data collection of the inventory and condition data of road assets systematically. 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 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.

### RMMS- GENERAL ARCHITECTURE:



The procurement of this was hosted on the E –portal of the Kerala Government as a 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. The bids for the Supply, Installation, Testing, and Commissioning of a Web-based Software for Road Maintenance Management System for the Kerala Public Works Department were published in the dailies The Hindu and Malayala Manorama on 20.10.2019.

The period of assignment is 8 years and 6 months (6 months implementation, 5 years warranty period, and 3 years extended period of service). The bids were opened on 23.12.2019. The bids were invited on a single-stage system. Three bidders responded to the tender. The details are as follows:

TRL Professional JV with Experian Technologies (India) Pvt Ltd has been awarded a contract. Letter of Award has been issued to Bidder on 07.05. 2020. The agreement was signed on June 5<sup>th</sup> with Bidder with an Estimated price of 4.54 Cr.

#### Status

TRL was Mobilised on 1<sup>st</sup> August-2020. The consultant submitted the Draft PMP on 03-08-2020. The committee has reviewed PMP and comments on PMP. Revised PMP submitted on 20-08-2020. They have submitted the inception report on 02/09/2020.

Service for conducting Road Condition Surveys including traffic surveys, Trial pits, Core cutting and Axil load surveys on SH & MDR in the state of Kerala has tendered on 28/10/2020. Bids were opened on 10-12-2020, Single bidder. Technical and Financial evaluations have completed.

SI. No.	Name of Bidder	Nationality	Whether technical bid opened/ not opened	Remarks
1	M/S Velciti Consulting Engineers Private Limited	Indian	Opened	Single Entity

The work was awarded to M/s Velciti Consulting Engineers Pvt Ltd with Quoated price 65 Lakhs.

#### 5.18.4 E.Governances support for prices 2.0 Implementation:

The Chief Engineer, Roads & Bridges, and the Chief Engineer, Road Maintenance have submitted a note to KSTP for inclusion of e-Governance activities under ISAP (Institutional Strengthening Action Plan) of KSTP (Annexure 1) PWD has over 500 Section Offices, 190 Sub Division Offices, 50 Division Offices, 12 Circle Offices, and 7 Chief Engineer Offices State-wide. Even though computers and peripherals were supplied to these offices over the last 10 years, the number of computers provided was restricted due to budgetary constraints. There sent status fo IT infrastructure available at various PWD offices from Section office level to Circle office-level state-wide are listed below:

SL.No	No. of offices	No. of staff using e- Governance Applications	Avg. No of Computers available per office	Multi-function printers	Laptops
Sections	495	4	1 no. issued in 2011 (Mostly dysfunctional)	1 no. issued in 2011 (Mostly dysfunctional)	
Sub Divisions	199	9	4	1 no. issued in 2010 (Mostly dysfunctional)	One laptop issued to all office heads as part
Divisions	54	22	10 to 12	1 no. issued in 2010 (Mostly dysfunctional)	of PRICE software implementation
Circles	12	25	15	1 no. issued in 2010 (Mostly dysfunctional)	

As evident from the above table, the IT infrastructures at various PWD offices are highly inadequate to cope up with the requirements for the implementation of the total e-Governance System.

In a PWD Division office where about 20 staff are required to work using a computer, we have provided only 10 to 12 computers on an average and many of them are in non-working condition now. The multifunction printer devices are allotted to Subdivision, Division, and Circle offices in the year 2010. PWD IT Cell has arranged an annual maintenance contract for these devices until December 2016. After that, the manufacturers have informed their inability to provide AMC support as the model is outdated. The Section offices of PWD are the most important unit of PWD in

which all the projects are initiated and are executed. On average, infrastructure projects costing over 10 to 15 crores are executed through each Section office in every financial year. This is expected to increase further when the execution of KIIFB projects starts in full swing.

Apart from this, on the spot, M-Book preparation is envisaged in PRICE software which requires the provision of handheld tablets with internet connection facilities, one each for each Section Office of PWD. It is also proposed the online Rest house reservation and management software as part of WINGS up-gradation, which also requires providing necessary computer allied infrastructure in each rest house. The PRICE-2.0 and online Rest house reservations are proposed to be implemented from 1st April 2019.

Under KSTP-II, there is an allocation of US \$10 million (Rs. 70 Crores) in Component C (Institutional Strengthening) out of which Rs. 30.80 Crores is the State share. The World Bank's procurement procedure takes much time. When discussed with the World Bank, they informed that sole-sourcing KELTRON using Bank finance is not possible. As per the Government, order vide G.O.(Rt) No.25/2018/ITD dated, Thiruvananthapuram,01/02/2018, the Government accorded sanction for implementing a Centralized Procurement System in Government for the purchase of commonly used hardware items such as desktops, laptops, printers, scanners, etc. through an online Government portal (http://cprcs.kerala.gov.in/) developed for this (Annexure - 4).M/s KELTRON is entrusted as the service provider, who will derive rates for the commonly used IT equipments, through a competitive bidding process. As World Bank has expressed its unwillingness for single-source funding, it is proposed to procure the hardware using State funds as per the centralized procurement system of the Government of Kerala. The Budget estimate 2019-2020 has an allocation of Rs.2.70 Crores under the head of account 5054-80-80-82 for e-Governance in PWD (Annexure -3). Its estimated cost of around 18.5 Cr is approved in the 106th Steering committee.

#### 5.18.5 Post-Construction Technical Audit for Ongoing Work (A1 & B Component)

The government of Kerala's intends to constitutes a "Technical Audit Committee" for reviewing the Output Deliverables of the Audit or sand determine necessary actions, as may be required thereof, the need for further technical inspections and quality tests, if any, required and recommended by the Auditor shall be considered along with suitable funding arrangements made for the same either from the KSTP budget or elsewhere. These reports shall be made available 10th Aug (or The Technical Audit Committee" shall be headed by Secretary-PwD, KSTP-PD, and a senior-level representative from Finance Department The committee shall be staffed with technical specialists either from Research or Academic Institution 1 Bridge Expert 2. Pavement Expert and 3 a representative from KSDMA or Revenue Department Involved in the 2018 flood disaster assessment for Roads. Their remuneration of these experts shall be borne by KSTP

This Final Technical Audit Report under Section-IV Scope of Services as defined in TOR; to review the road sections or work packages which are yet to be taken over by the client. The technical audit is to determine the work packages have been constructed as per employer design & specifications, with suitable and approved materials during construction and necessary quality control procedures and workmanship have been ensured or not. And also, to critically analyse the construction machineries, laboratory arrangements, Calibration, test results, and their trends also be made on a sample basis. The technical audit findings are furnished below roads as explained in Section-I.2 of TOR.

				EXPECTED
SI	. CONTRAC	NAME OF WORK	LENGTH	DATE OF
No	). <i>T</i>		(KM)	COMPLETION/
	PACKAGE			STATUS
1.	KSTP II/UG-1	Kasaragod – Kanhangad	27.78	March 2018
		Road		
2.	KSTP II/UG-2	Pilathara – Pappinisery	20.90	March 2018

		Road		
3.	KSTP II/UG-3A	Thalassery – Kalaroad	30.00	March 2019
4.	KSTP II/UG-3B	Kalaroad to Valavupara	24.00	March 2019
5.	KSTP II/UG-4	Chengannur – Eattumanoor Road	47.70	Completed (Under Defect Liability Period)
6.	KSTP II/UG-5	Eattumanoor – Muvattupuzha Road	40.96	Completed (Under Defect Liability Period)

A copy of each report deliverable of Technical Audit along with Records of Discussions of "Technical Audit Committee" meetings shall be made available to the World Bank's TTL for review, as soon as it is received.

M/s HAKS Engineers, Architects & Land Surveyors PC in JV with M/s Info Trans Engineers Pvt Ltd and M./s ECORYS NEDERLANDS Bv has been awarded a contract on 07.03.2019. The Cost of a Tender is 1.64 Cr in 2 Phases.

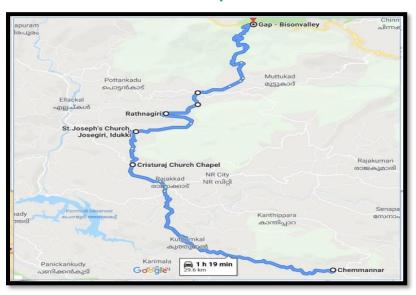
Status: HAKS Engineer has submitted the Draft Interim report Technical Audit Report-2 and final technical audit report. They have submitted Final Report on 13-10-2020.

# 5.19 Component D: Rebuild 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.

SI. No.	Category	Contract Package	Name of Work	Length (Km)	Constructio n Period	Mainten ance Period
		KSTP-II/PMT/RKI- 2	Chemmannar Gap road	29.94		
1	Category B	KSTP-II/PMT/RKI-	Painavu-Thannikandom- Asoakkavala road	21.0	12 Months	60 Months
		KSTP-II/PMT/RKI- 4	Adoor- Chengannur	23.80		

# 5.19.1 RKI-2\_Chemmanar Gap Road Status



Project Name	Upgrading Chemmanar -Gap Bisonvalley (RKI 2)) Package: Km
	0+000 (Chemmannar) to Km 29+935 (Gap Bisonvalley)
Length of the Road	29.935 Km
Name of Contractor	M/s DRAIPL – GREENWORTH (JV)
Type of Contract	Engineering, Procurement, Construction ("EPC")
Agreement No & Date	03.10.2020
Date of Award (LOA Date)	07.05.2020
Appointed Date	18.08.2020
Construction Period (in Months)	12 Months
Maintenance Period (in Months)	60

Scheduled Date of Completion	17.08.2021
Authority Engineer	Consulting Engineers Group Ltd, Jaipur
Chainage of the Project (in Km)	km 0.000 to 29.935
Total Project Cost (in Cr)	146.67

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

Accordingly, the Contractor has submitted an undertaking stating that M/s Cherian Varkey Construction Company Pvt. Ltd. would deploy the key personnel and the key equipments as per clause 2.6 and 2.7 of Section III, Evaluation & Qualification Criteria respectively in accordance with the requirements as per the RFB before executing the agreement if the work is awarded to them. 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 contractor's quote was 24.00 % higher than the estimate and hence committee recommended for re-tendering. This has been retendered and the bid opening date is on 13-03-2020 and the Deadline for submission of original documents like bid security, cost of bid document, etc. was 23.03.2020. Due to the Pandemic situation and Lockdown being announced, the bid opening date was changed to 27-04-2020.

The clearance from the World Bank for the opening of financial bids of the above work was received on 24.04.2020. The bidders whose Technical Parts have been evaluated as substantially responsive were notified regarding the responsiveness and invited them for the opening of the financial part. The Financial part of the bids were opened on 27.04.2020. The details are as follows:

The price quoted by the lowest evaluated responsive bidder, M/s DRAIPL – Greenworth (JV) is Rs.146.67 Cr, which is 14.99% more than the estimated cost of Rs. 127.55 Cr may be accepted& awarded considering the fact that this is a 2<sup>nd</sup> re-tender, and the work being an EPC contract, to be executed in a **hilly terrain** with five years maintenance period, retendering again may not yield a better offer. LoA was issued to the Contractor on 07-05-2020 but the Contractor has asked for EOT for the Appointed date. The agreement was executed on 3<sup>rd</sup> Aug-2020.

#### **Milestone**

	Description	Planned		Act	ual	
Project Milestone	(Days from Appointed Date)	Financial Progress (%)	Scheduled Date	Financial Progress (%)	Revised Date	Remarks
Milestone I	145	20 %	10.01.2021			
Milestone II	220	55 %	26.03.2021			Work programmed not submitted
Milestone III	295	75 %	09.06.2021			
Scheduled Completion	365	100 %	18.08.2021			

# Physical Progress ( July – December-2020)

	Item Stage for Payment			SCHEDULE	- н	Comp	onent wi	se -Physical s (%)
Item			Weight age in % to the Contra ct Price	Contract Price	% Weightage to Particular	Durin g Curre nt Month	Up to previ ous mont	Cumulative, Up to Current Month
1		2	3	4	5			
Road works including culverts, Minor Bridges, underpass es, overpasse s, approache s to Major Bridges/Str uctures (but excluding service roads)	A  1 2 3 4 5 6 7 B 1 2 3 4 5 C 1	Widening and strengthening of existing road  Earthwork up to top of sub-grade Rock cutting Granular Work (sub-base, base, shoulders) Bituminous work  Paver Block Widening and repair of culverts Widening and repair of minor bridges New 2-lane realignment / bypass Earthwork up to top of sub-grade Rock cutting Granular Work (sub-base, base, shoulders) Bituminous work Paver Block New Culverts, minor bridges, under passes, over passes on existing road, realignments, bypasses: Culverts		4 63,61,18,6 33	5  3.61%  15.69%  26.94%  37.75%  0.00%  1.46%  3.66%  0.00%  0.00%  0.00%  1.04%			
	2 <b>D</b>	Minor Bridges  Reconstruction of culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:			0.00%			
	1	Culverts			9.85%			
	2	Minor Bridges Sub Total A			0.00% <b>100.000%</b>			
Major Bridge works, Underpass es, overpasse s, and ROB/RUB	A 1) 2) 3)	Widening and repairs of major bridges  Foundation Substructure  Superstructure (including crash barriers etc. complete)	0.00%		0.00% 0.00% 0.00%			
		Sub Total B			0.000%			
	i)	Service roads	56.63%		0.00%			

		Total Amount (A+B+C)	100.00 %	1,46,67,25 ,000			
		Sub Total C			100.000%		
	xii )	EMP Works and Monitoring of Environment Attributes, ESHS requirement.			5.97%		
	xi)	Footpath, Utility culverts, utility ducts, Roadside Lighting, site clearance, and General Items			10.56%		
	x)	Retaining wall			24.50%		
	ix)	Junctions			0.98%		
	vii i)	Safety and traffic management during construction			0.02%		
	vii )	Repair of protection works			0.00%		
	d)	Other items			0.00%		
	c)	Providing crash barriers		83,06,06,3 68	0.00%		
Other works	a) b)	Providing wearing coat Replacement of bearings, joints			0.00%		
					0.00%		
	vi)	Repairs to bridges/structures			0.00%		
	d)	Turfing, Kerb, W' Metal Beam Crash Barrier, Pedestrian Guard Rails			28.52%		
	c)	Truck lay bye			0.00%		
	b)	Bus Shelter			1.20%		
	a)	Bus Bye			0.00%		
	iv)	stones, safety devices, Road Appurtenances  Project facilities			9.37%		
	iii)	Road side drains Road signs, markings, km			18.88%		
	ii)	Toll Plaza			0.00%		

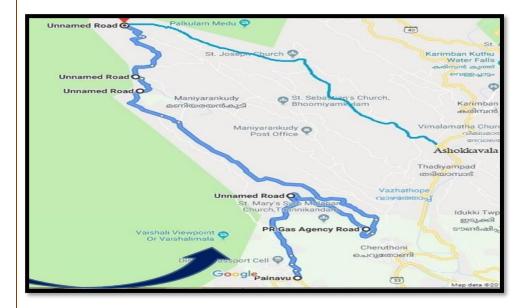
SI. No	Item	Scope	Work done in this month	Cumulative progress	Balance work	Remarks
	Road works					
1	Exc upto SG Top	29.935				Not yet Started
2	Rock cutting	29.935				Not yet Started
3	GSB	29.935				Not yet Started
4	WMM	29.935				Not yet Started
5	DBM	29.935				Not yet Started
6	ВС	29.935				Not yet Started
	Structure works					
1	Reconstruction/Ne w Construction of Box culverts	38				Not yet Started
2	Repair and Rehabilitation of Slab Culverts	18				Not yet Started
3	Widening of Slab Culverts	3				Not yet Started

	Retaining Wall	2.891		Not yet Started
4	Length (in Mts)	Km		
	Gabion Wall Length	0.952		
5	(in Mts)	Km		Not yet Started

#### Current issues (July - Dec -2020)

- Mix Design for GSB, WMM, DBM&BC.
- Mix Design for Concrete works
- GAD/Working Drawings
- > ROW &Chainage pillars erection
- Submision of Plan and profile drawings
- Submision of culvert drawings
- Estimates of Water pipe line and External parts
- Slow progress of works.
- > Work programme not yet submitted.
- Mobilization of Key persons
- > Status of works not informing to Authority.
- Delay in submitting Design & Drawings.
- Delay in Mobilization of Resources

### 5.19.2 RKI-3\_Painavu-Thannikandom-Ashokkavala Status



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

On the 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 the 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 was sent to the Steering committee for approval and the same has been approved by the committee. LOA Issued to the contractor. The agreement was signed on 24-01-2020 and the construction period is 12 months from the Appointed date and work is in progress as below.

# Progress of Work

Project Name	Upgrading Painavu –Asokawalaroad (RKI 3)) Package: Km
	0+000 (Painavu) to Km 21+000 (Asokawala)
Length of the Road	21.000 Km
Name of Contractor	M/s EKK Infrastructure Ltd
Type of Contract	Engineering, Procurement, Construction ("EPC")
Agreement No & Date	24.01.2020
Date of Award (LOA Date)	22.11.2019
Appointed Date	30.04-2020
Construction Period (in Months)	12 Months
Maintenance Period (in Months)	60
Scheduled Date of Completion	29.04.2021
Authority Engineer	Consulting Engineers Group Ltd, Jaipur
Chainage of the Project (in Km)	km 0.000 to 21.000
Total Project Cost (in Cr)	95.40

# Milestones

	Description	Pla	anned	Ac	tual		Remarks	
Project Milestone	(Days from Appointed Date)	Financial Progress (%)	Scheduled Date	Financial Progress (%)	Revised Date	Current Status		
Milestone I	145	20%	22.09.2020	10.410			Control	
Milestone II	220.	55%	06.12.2020				Contracor Submitted EOT - 1 and the same reviewed and	
Milestone III	295	75%	19.02.2021				recommended to the Authority for	
Scheduled Completion	365	100%	29.04.2021				approval	

# Physical Progress from July to Dec -2020 is 10.41%

		Sub Component wise po		ng the		nent wise - Progress (%	
Compane nt	Weightag e %	Sub Component	% Weightag e	% Progres s	During Current Month	Up to previou s month	Cumulativ e, Up to Current Month
Road works	48.86%	Widening and strengthening of existing road  Earthwork up to top of subgrade  Rock cutting  Granular Work (sub-base, base, shoulders)  GSB ( 43%)  WMM (53%)  Shoulder (4%)  Bituminous work  DBM (43%)  BC (57%)  Paver Block  Widening and repair of culverts  New Culverts, minor bridges, under passes, over passes on existing road, realignments, bypasses:  Culverts  Reconstruction of culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:  Culverts  Culverts	3.090% 12.680% 9.980% 12.310% 0.930% 14.970% 19.850% 5.790%				
Other works	51.14%	Road side drains Road signs, markings, km stones, safety devices, Road Appurtenances Road signs Road markings Km stone Safety Devices, Road Appurtenances Project facilities Bus Bay Bus Shelter Turfing, Kerb, W' Metal Beam Crash Barrier, Pedestrian Guard Rails a) W metal beam crash barrier	0.691% 1.118% 0.280% 6.111% 0.460%				

	_		_		
	b) Kerb	5.030%			
	c)Turfing	0.620%			
	d)Pedestrian Guardrails				
	Safety and traffic management during construction	0.030%			
	Junctions	8.980%			
	Retaining wall				
	Toe wall / Gabion wall / Retaining wall	17.438%			
	Rehabilitation measures at land slide locations	5.812%			
	Footpath, Utility culverts, utility ducts, Roadside Lighting, site clearance, and General Items				
	a) Footpath				
	b) Utility Ducts	0.251%			
	c) Site clerance	1.489%			
	d) Roadside Lighting	5.810%			
	e) General Items - QC Laboratory	0.550%			
	f) Saplings	0.200%			
	EMP Works and Monitoring of Environment Attributes, ESHS requirement.	6.610%			
	Sub Total C	100.000%	-		
100.00%	Total Amount (A+B+C) =				

SI. No	Item	Scope	Work done in this month	Cumulative progress	Balance work	Remarks
	Road works					
1	Exc upto SG Top	21.00				Not yet Started
2	Rock cutting	21.00	15	15		Work in progress
3	GSB	21.00				Not yet Started
4	WMM	21.00				Not yet Started
5	DBM	21.00				Not yet Started
6	ВС	21.00				Not yet Started
	Structure works					
1	Culverts	66 Nos.	1	1		Work in progress
	Toe wall /Gabion, RCC					Work in progress
2	Retaining wall	786	176	176		

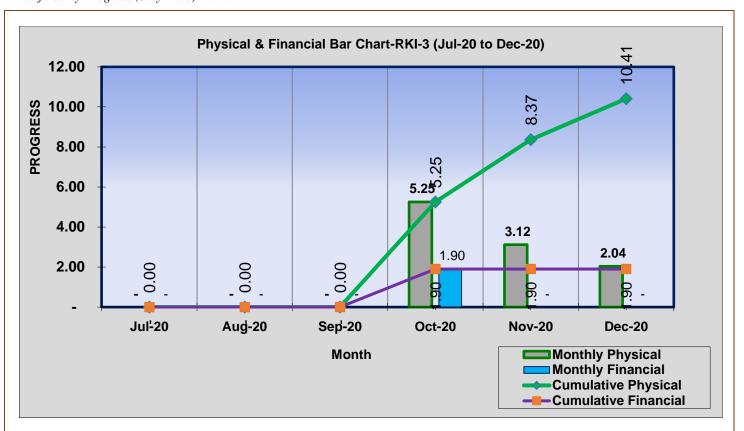
- Centreline marking completed from 0+000 to 21+000
- OGL Soil sampling completed.
- Existing Pavement Crust thickness checking completed.

- ➤ OGL Recording completed from 0+000 to 21+000
- All Concrete mix designs completed and WMM & GSB mix design work in progress.
- ➤ Electrical & water Utility shifting locations identified and estimation not received from concerned departments.
- C&G Work completed for a length of 21 km.
- Rock cutting work completed in 3 locations
  - o From km.1+545 to 1+571
  - o Km.1+786 to 1+840
  - o Km.2+102 to 2+122
  - o And remaining locations work in progress
- Gabion wall work in progress
  - o From km.0+985 to 1+004 (this work will complete on 1st week of December-20)
  - o Km.8+580 to 8+593 (this work will complete on 1st week of December-20)
  - o Km.3+451 to 3+486 (this work will complete on 1st week of December-20)
  - And remaining locations work in progress
- Retaining wall with Dry rubble masonry work in progress at 9 Locations and this work will complete on 1st week of December-20
- Box culverts work in progress at 9 Nos. of locations out of 66 Nos.

# Financial Progress

Name of Contractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Dec-2020)	Financial Progres in %(Dec-2020)
M/s EKK Infrastructure Ltd	29.04.2021	95.40	10.41 %	1.90 %
Date of commencement	EOT-Approved	Variation Order Value in crores	Anticipated Revised Project Cost	Billed Amount made till end of Dec-2020 (Net Amount)
30.04-2020				1.90 Cr

The financial progress from July to December is 1.90% (Mobilisation Advance paid)

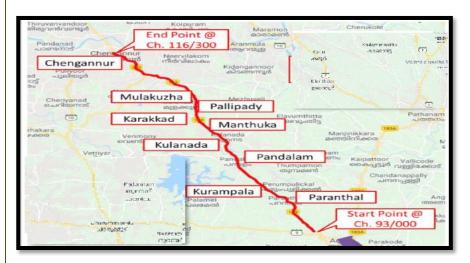


Month	Till Jun'20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total
Physical -%	1	1	•	1	5.25	3.12	2.04	10.41
Cumulative Physical-%	-	-	-	-	5.25	8.37	10.41	
Financial -%	-	-	-	-	1.90	-	-	1.90
Cumulative Financial-%	-	-	-	-	1.90	1.90	1.90	

### Current Issues ( July - Dec - 2020)

- ✓ The Contractor has submitted a Traffic Management Plan (TMP), the shortfalls are communicated to the contractor. The contractor needs to resubmit TMP with duly incorporating the shortfalls.
- ✓ The contractor has not informed about his planning for mobilization of the Manpower and Machinery.
- ✓ Applicable permits are also not submitted by the contractor till date.
- ✓ Slow Progress of works due to poor planning & COVID-19.
- ✓ Revised Work Programme not submitted by the Contractor.
- ✓ Delay in submission of Design & Drawings.
- ✓ Utility shifting estimation not received from concern departments, this will affect the progress
  of works.

#### 5.19.3 RKI- 4 - Adoor - Chengannur Road Status



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

On the 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 the 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.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 the Steering committee approval and the same has been approved by the committee. LOA Issued to the contractor. The agreement was signed on 24-01-2020 and the construction period is 12 months from the Appointed date. LoA has been issued to the Contractor on 07.05.2020. Work is in progress as per table below.

#### **Progress of Work**

Project Name	Upgrading Adoor- Chenganoorroad (RKI 4)) Package: Km 0+000
	(Adoor) to Km 23+800 (Chenganoor)
Length of the Road	23.800 Km
Name of Contractor	M/s EKK Infrastructure Ltd
Type of Contract	Engineering, Procurement, Construction ("EPC")
Agreement No & Date	24.01.2020
Date of Award (LOA Date)	22.11.2019
Appointed Date	30.03-2020
Construction Period (in Months)	12 Months
Maintenance Period (in Months)	60
Scheduled Date of Completion	29.03.2021
Authority Engineer	Consulting Engineers Group Ltd, Jaipur

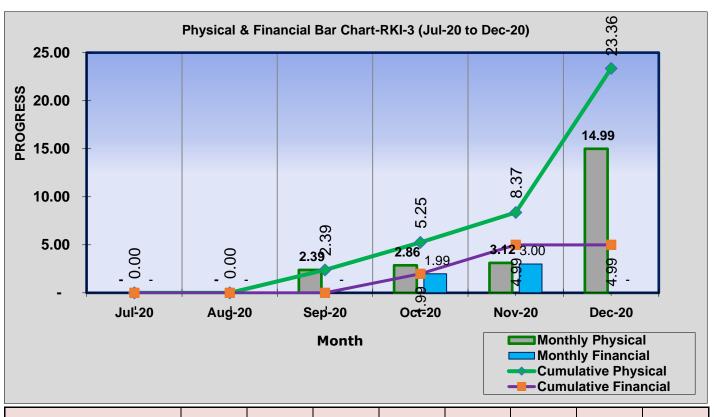
Chainage of the Project (in Km)	km 0.000 to 23.800
Total Project Cost (in Cr)	98.10

#### **Milestones**

	Descriptio n	Pla	nned	A	ctual				
Project Milestone	(Days from Appointed Date)	Financi al Progres s (%)	Scheduled Date	Financi al Progres s (%)	Revised Date	Current Status	Remarks		
Milestone I	145	20%	22.08.2020	20%		MS-01 Achieved			
Milestone II	220.	55%	05.11.2020	23.362			Contractor submitted the EOT-1 and the same reviewed and		
Milestone III	295	75%	19.01.2021				recommended to the Authority for approval		
Scheduled Completio n	365	100%	29.03.2021						

# **Physical Progress**

Physical Progress from July to December-2020 is 23.362 %.



Month	Till Jun'20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total
Physical -%	-	ı	1	2.39	2.86	3.12	14.99	23.36
Cumulative Physical-%	-	,	-	2.39	5.25	8.37	23.36	
Financial -%	-	ı	1	-	1.99	3.00	ı	4.99

Cumula	tive Financial-%	-	-		-	-	1	.99	4.99	4.99	
SI.No	Item	Scope	Work on the mon	nis	(	Cumulative progress	•		ance ork	Remarks	
	Road works										
1	Exc upto SG Top	6.455	2.051		2.0	)51		4.404		Work in prog	gress
2	GSB	6.455	2.051		2.0	)51		4.404		Work in prog	
3	WMM	6.455	1.988		2.0	)51		4.404		Work in prog	gress
4	DBM	6.455	2.460		2.4	160		3.995		Work in prog	gress
5	ВС	23.80	3.085		3.0	)85		20.71	5	Work in prog	gress
	Structure works										
1	Culverts	44 Nos.	6.5		19	Nos.		35		Work in pro	gress
2	Repairs & Rehabilitation of Culverts	20			20					Completed	
3	RCC Drain ((Pre- Cast &Cast-in situ)	3000 m	310		69	90.7		23	09.3	work in prog	ress
	Toe wall /Gabion,				_			-	775		
4	Retaining wall	1140	131		3	65				work in pr	ogress
5	Footpath	10369m	1600		5	878		4	491	work in pr	ogress
6	MB Crashbarrier	6700 km	123		157	73		51	127	work in prog	gress

	Weighta ge in % to the Contrac t Price	Contract Price	Su	b Component wise p month	Component wise - Physical Progress (%)				
ltem				Sub Component	% Weighta ge to Particul ar as per Propos ed	%Progr ess	Duri ng Curr ent Mont h	Up to previo us month	Cumulat ive, Up to Current Month
			Α	Widening and strengthening of					
		ζ	existing road						
l			1	Earthwork up to top of sub-grade	1.60%	0.508			14.323
Road works including			2	Rock cutting					
culverts, Minor Bridges,			3	Granular Work (sub-base, base, shoulders)			9.86 1	4.462	
underpasses				GSB (44%)	6.252%	1.986			
,	FO 450/	52,43,44,		WMM (54%)	7.670%	2.437			
overpasses, approaches	53.45%	500		Shoulder (2%)	0.288%				
to Major			4	Bituminous work					
Bridges/Stru ctures (but				DBM (21.33%)	13.26%	5.053			
excluding				BC (78.67%)	48.90%	6.338			
service roads)			5	Paver Block					
roads)			6	Widening and repair of culverts	1.93%	1.93			
			7	Widening and repair of minor bridges					

							<u> </u>		
				New 2-lane					
			В	realignment /					
				bypass			-		
			1	Earthwork up to top of sub-grade					
			2	Rock cutting					
				Granular Work			-		
			3	(sub-base, base,					
			3	shoulders)					
			4	Bituminous work					
			5	Paver Block					
				New Culverts,					
				minor bridges, under passes,					
			С	over passes on					
				existing road,					
				realignments,					
				bypasses:					
			1	Culverts	2.11%		]		
			2	Minor Bridges					
				Reconstruction of					
				culverts, minor					
				bridges,					
			D	underpasses,					
				overpasses on existing road,					
				realignments,					
				bypasses:					
			1	Culverts					
				Cast-in-Situ	3.60%				
				(Culverts)	3.0070				
				Pre-Cast (Culverts)					
				Casting of Culverts	11.51%	6.834			
				(80%)					
				Laying of Culverts	2.88%	1.710			
			2	(20%)					
				Minor Bridges	100.000				
				Sub Total A	%				
				Widening and	70				
Major Bridge				repairs of major					
works,			Α	bridges					
Underpasse			1)	Foundation					
S,	0.00%	_	2)	Substructure			]		
overpasses,	3.0070			Superstructure					
and ROB/RUB				(including crash					
NOD/NUD			3)	barriers etc. complete)					
	-		4)	Protection Work			1		
			7)	Sub Total B					
			i)	Service roads					
							1		
			ii)	Toll Plaza			-		
			iii)	Road side drains			]		
				Casting of Drain	26.96%	6.207			
				(80%)			-		
Other works	46.55%	45,66,55,		Laying of Drain (20)	6.74%	1.551	-		
		500		Road signs, markings, km					
				stones, safety					
				devices, Road					
			iv)	Appurtenances					
				Road signs	2.430%		]		
				Road markings	2.460%				

		-	<del></del>		Km stone		0.032%		<u> </u>		<u> </u>
			-		Safety Device	s,	0.002/0				
					Road	ŕ	1.638%				
					Appurtenance						
				v)	Project facilitie	es					
				a)	Bus Bye		0.48%				
				b)	Bus Shelter		0.13%				
				c)	Truck lay bye						
					Turfing, Kerb,						
					Metal Beam C						
					Barrier, Pedes	strian					
			_	d)							
					a) W metal be	am	6.71%	1.575			
			<u> </u>		crash barrier						
					b) Pedestrian	_					
						Gu	0.700/				
						ard	8.72%		4.15	4.881	9.039
						Rai			8		
			<u> </u>		a) Karb	ls	2 520/	1.050			
			<u> </u>		c) Kerb		3.52%	1.052	-		
				,,:\	Repairs to	uroo					
			F	vi)	bridges/structu				]		
				c)	Providing wea	ırırıg					
			<u> </u>	a)	Coat	-4					
				h)	Replacement						
			F	b)	bearings, joint						
				٥)	Providing	crash					
			F	c) d)	barriers Other items				-		
			<del> </del>	u)	Repair of prote	oction			-		
				vii)	works	ection					
			<del> </del>	VII)	Safety and tra	ffic			-		
				viii	management	IIIC					
				) VIII	during constru	ıction					
			-	ix)	Junctions	ICTION	5.79%				
				x)	Retaining wall		13.07%	4.184			
			-	^)	Footpath, Utili		13.07 /6	4.104			
					culverts, utility						
					ducts, Roadsi						
					Lighting, site						
					clearance, and	d l					
				xi)	General Items						
				-,			8.99%	2.548	1		
			<u> </u>		a) Footpath		0.33/0	2.540			
					d) Roadside		4.79%				
			<u> </u>		Lighting	ma					
					e) General Ite		0.55%	0.55			
			<u> </u>		QC Laborator				-		
						iiu					
					Monitoring of Environment		6.99%	1.747			
					Attributes, ES	нѕ	0.3370	1.747			
				xii)	requirement.	. 10					
				7,	Sub Total C		100.000				23.362
							, ,		tive to end of this Month		
Up to end	of pre	viou	s Month		This M	onth		Cumulat	ive to en	d of this	Month
Up to end Target	of pre		s Month		This M		ieved	<b>Cumulat</b> Targ			<b>Month</b> hieved

Up to end of previous Month		This M	lonth	Cumulative to end of this Month		
Target	Achieved	eved Target		Target	Achieved	
10.050 Cr (10.244%)	8.207 Cr (8.367 %)	15.00 Cr 15.290	14.710 Cr (14.990 %)	25.00 Cr (25.484%)	22.917Cr (23.362 %)	

# **Financial Progress:**

Name of Contractor	Original date of completion	Contract Value in Crores	Physical Progress in % (Dec-2020)	Financial Progres in %(Dec-2020)
M/s EKK Infrastructure Ltd	29.03.2021	98.10	23.36 %	4.99 %
Date of commencement	EOT-Approved	Variation Order Value in crores	Anticipated Revised Project Cost	Billed Amount made till end of Dec-2020 (Net Amount)
30.03-2020				4.90Cr

Financial progress from July to December 2020 is 4.99%

### Current issues (July- December- 2020)

- Revised Work Programme not submitted.
- Slow progress of work due to poor planning.
- Contractor not submitting the GAD/Working Drawings
- Delay in utility shifting.
- culvert works are getting delay due to shifting of BSNL and other utilities shifting
- Contractor has stopped the work at Chenganur side 8km stretch due to the instructions from the MLA ,Chenganur.

## 5.19.4 Other Procurement Details in Progress as:

SL. No	Procurement details/ Name	Description	Work Details	Status
1	OPBRC Works	Package- 01 Chengannur- Angamaly	Maintenance work period of 7 years. Funded by GoK. It was tendered on 27-07- 2020. The bid opening date is 27-08-2020, Estimated Value of package is 69. 42Cr.The total length of the package is 107.75 km	only 2 Bids were received M/s Shreedanya & M/s Nath Infrastructures. Evaluation was done for both Technical & Financial due to High quoted by both Bidders which was 30% more than the estimated price. The steering committee rejected bidders of OPBRC-01, Advise to retender
		Package- 02 Ponkunnam - Thodupuzha, vattavada- top station, Munnar from Top station to Munnar in kottayam	Bid was uploaded on 27/08/2020, Bid Submission was 30/09/2020, Estimated Value 68.60 Cr. The total length of the package is 89.81 km	Only one Bidder, M/s. Thiruvath Builders, both technical and financial evaluation has done, the bidder has quoted 30.59% more than the estimated cost. Advise to retender
		Package - 03 - Kollam Ayoor, Kayamkulam- Mavelikkara- Thiruvalla, K P Road from Kayamkulam to Adoor, Thrikkunnipuzha- Thattarambalam,	Bid was uploaded on 17/09/2020, Bid Submission was 16/10/2020, Estimated Value 60.12 Cr. The total length of the package is 86.254 km	Only one Bidder, M/s. Thiruvath Builders, both technical and financial evaluation has done, the bidder has quoted 25% more than the estimated cost. Advise to retender

		PandalamKaipattoor in Kollam, Alappuzha, Pathanamthitta		
		Package- 04, Cherkala-Jalsoor, Kuttiyadi-Kellur, Sultan Bathery- Pulpally-Perikkallur Road Districts	Bid was uploaded on 27.08.2020, Bid Submission was 30.09.2020, Estimated Value 82.30 Cr. The total length of the package is 97.138 km	No Bids Received , Planned to retender
2	Four CSC to be selected for RKI Supervision works. EOI for shortlisting in progress.	AE-1	Consist of 4 roads of Pkg-II was tendered for selected Consultants & Received 5 Bids is under evaluation stage, Bid Uploaded on 06-07-2020 Last date of submission on 06-08-2020.	M/s Egis - Orion (JV)consulting Pvt Ltd was awarded with contract price 11.87 cr. Agreement was executed on 28/10/2020
		AE-2	Tender uploaded on 11- 08-2020, Last date of submission on 23-09- 2020, AE-2 consists of 6 roads of Pkg-I & Pkg-II has been Tendered. 10 Bids were received	M/s MSV (JV) Associates Engineering Pvt Ltd was awarded with contract price 9.48 Cr
		CSC-1 for PKg-III RKI CSC-2 for Pkg-IV	EOI Stage	Pre-qualification stage
		RKI		
3	AC road/ Upgradation of Alappuzha- Changanssery road into Semi Elevated Highway	Upgradation of Alappuzha- Changanssery road into Semi Elevated Highway Work	Tender uploaded on 14- 08-2020, Last date of submission on 07-09- 2020, Estimated cost- 610.25 Cr	Three Bids were received, 1) M/s RDD-CVCC(JV), 2) M/s ULCCS-EVRASCON(JV), 3) M/s Marymatha- KMC(JV). M/s ULCCS- EVRASCON(JV) was awarded, Agreement executed on 27/10/2020 was awarded with 679.0 Cr Site Inventory Details submitted on 30/12/2020
		AE for AC road	Bid uploaded on 16-09- 2020, Last date of submission on 16-10- 2020	11 bids were received, Procurement stage have completed, Technical evaluation result has uploaded. Financial bid opened on Dec 2020 and M/s. Voyants in Jv with TASPL in association with AIPPL is the H1, LOA to be issued.was awarded with 7.06cr contract price.
4	Vulnerability Assessment	-	EOI Stage	EOI bids Received & RFP to prepare and Final ToR under progress. Evaluation report preparation under progress

5	Skywalk (This work is Not under World Bank )	Proposed timeline for development of Sky walk-in Thiruvananthapuram	Agreement signed with Arkitechno Consultants (India) Pvt. Ltd. In JV with M/s Design Forum International on 07-09- 2020	ARKITECHNO in JV with DESIGN FORUM has been Awarded with the highest score. LoA has been issued to Bidder on 28.07. 2020. Executed Agreement on 07-09-2020. They have submitted an inception report and alignment report. The preliminary survey under progress and finalization of alignment is in progress.
6	WSA (This work is Not under World Bank )	WSA -I	Establishing, Operating and Maintaining wayside amenities on land leased out by KSTP/ PWD under BOT Mode (Build, Operate,	HPCL is the only bidder. The draft Lease Agreement submitted to Govt. for getting approval of Revenue/ Finance department cabinet approval
		WSA -II	Transfer)	Under the procurement stage, Tender uploaded 14/10/2020, Last submission date is 11/11/2020. No Bids Received. It is decided to do as an in-house project.

#### 5.20 RKI FLOOD WORKS KFW LOAN & WORLD BANK LOAN

During the 2018 natural disaster, most of the roads built under the World Bank-funded KSTP Phase I and II (Kerala State Transport Project) performed well and suffered only limited damage. Engineers of the Public Works Division (PWD) believe that this is primarily due to the enhanced design standards, climate-proofing specifications, and enhanced supervision developed and implemented within the Project. Hence, PWD is now considering developing a more sustainable and climate-resilient asset stock in the medium to long term (especially during the planned rehabilitation of affected road infrastructure). The Government of Germany pledged to support the Governments Kerala in its rebuilding efforts with due attention to "building back better" principles, by providing via KfW: a) Two interest-reduced loans of up to EUR 170 million for climate-resilient reconstruction of flood-affected roads and bridges; and b) A grant of EUR 3 million for an accompanying measure to provide project-related capacity building and institutional strengthening. The GoK has committed to provide an own contribution of 30 % (EUR 51 million) of the total costs of the project, raising the total financing volume of this Project to EUR 221 million. Loan agreements were signed in November 2019 by KfW and the GoK. Also, the World Bank sanctioned two Development Policy Operations (DPOs) totaling to US\$250 million in May 2019 with an objective to mainstream disaster risks and climate change impacts information across the State's key areas of development including the roads sector. Part of this budget will finance the present program.

The approval was given by the Steering Committee in the 108<sup>th</sup> MOM dated 17-09-2019. KSTP has hired 4 consultancy firms, one for each cluster, to produce Detailed Project Reports (DPR) including detailed designs, draft tender documents, and Environmental and Social Impact Assessment (ESIA). Reports are expected to be finalized in April 2020. Based on the DPR a final list of roads will be drawn up to be financed by the KfWprogramme for Central and South areas and by KSTP for the North area. Package -01, 02 & 03 Agreement signed on 17.10.19 and Package-04 signed on 30.10.19.

#### **Deliverables**

The study will come up with the Detailed Project Report and Drawings for the redevelopment of the road under the 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 3 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 on by KSPT together with PMC and KfW. Consultants shall also 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.

### 5.20.1 RKI Package 1

**M/s Feedback Infra Pvt Ltd** has submitted the Inception report as per deliverables schedules and the same has been checked and comments given for necessary improvements. The Status of RKI roads mentioned below:

- All the roads have been tendered.
- 3 roads Have been tendered in August & others Roads in September.
- 3 Roads has been awarded & Agreement executed & 2 others are in S/C Approval stage.
- More Details mentioned in Below Table of Status of Package 1

#### 5.20.2 RKI Package 2

**M/s LNTIEL** has submitted the Inception report as per the deliverables schedule. It has been agreed to standardize the submissions of all the DPR's to avoid differences in implementation. PMC will be coordinating these 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 will be a crucial part of the reports to ensure durability and connectivity in severe conditions. The Status of RKI roads mentioned below.

- All roads have been awarded.
- 5 roads Have been tendered in July.
- All Roads has been awarded & Agreement executed in Montgh of October-2020
- More Details mentioned in Below Table of Status of Package 2

### **5.20.3 RKI Package 3**

**M/s Louis Berger Consulting Pvt Ltd** has submitted the Inception report as per deliverables schedules and the same has been checked and comments given for necessary improvements. The Status of RKI roads mentioned below:

LBI has submitted DDPR's of all the roads. However, since these roads are co-financed by KfW. Pilot DPR's of two roads has been reviewed by KfW and resubmission based on these

Comments are expected shortly. The other DPR's shall follow pilot DPR's and hence minimize reviewing all DPR's for the same issues.

- 3 Roads have been tendered & 7 other roads are in Final Stage of Procurement.
- More Details mentioned in Below Table of Status of Package 3

#### 5.20.4 RKI Package 4

**M/s Egis India Consulting Engineers Pvt Ltd** has submitted the Inception report as per deliverables schedules and the same has been checked and comments given for necessary improvements. The Status of RKI roads mentioned below.

EGIS has submitted DDPR's of all the roads except one road in Ranni District, which was awarded as an additional work in January 2020. However, since these roads are co-financed by KfW Pilot DPR's of Road No 4, has been reviewed by KfW, and resubmission based on these comments is expected shortly. The other DPR's shall follow pilot DPR's and hence minimize reviewing all DPR's for the same issues.

- √ 7 Roads have been tendered & 2 other roads are in Final Stage of Procurement.
- ✓ More Details mentioned in Below Table of Status of Package-4

# Status of Package-I

			PKG -I, M/s FEEDB	ACK		
Roa	ad No.	RKI-11	RKI-12	RKI-13	RKI-14	RKI-15
Road	d Name	Edoor – Companynirath - Anapanthy - Angadikkadavu– Vaniyappara - Charal - Valavupara - Kacherikkadavu - Palathumkadav road in Peravoor constituency	Uruvachal Manakkayi valayal -Keezhallur Therur Palayod-Vellaparamba Karimbala Colony Maruthaayi Road	valayal -Keezhallur Therur Palayod-Vellaparamba Karimbala Colony		Vythiri-Tharuvana road
Di	strict	Kannur	Kannur	Kasargod	Kozhikode	Wayanad
Length as	per ToR (km)	24.45	20.43	29.55	52.50	20.75
Length of Road as	s per actual site (km)	24.40	18.46	29.135	46.32	13.32
Catego	ry of Road	MDR	MDR	MDR	SH-34	MDR
			Status			
Subi	mitted	✓	✓	✓	✓	✓
	Estimated Cost in Cr (Excluding maintenance)	127.35	96.31	151.74	212.74	61.15
	Bids Received	2 (RDS & Ekk)	2 bids( RDS & EPI)	2 bids ( RDS & Eagle)	4 Bids ( Sreedanya, CVCC, EPI & ULCC)	4 Bids ( PMR CC, Malabar tech constrction , ULCC & Mid Land Engineering
	Awarded Cost in Cr	128.43	100.42	158.44	221.06	66.52
	Evaluation	Done	Done	Done	Done	Done
	Awarded	RDS	EPI	RDS	Sreedanya (L1)	PMR CC (L1)
	Approved by SC	✓	✓	✓	Not Yet	Not Yet
	LoA issued	<b>✓</b>	$\checkmark$	<b>√</b>	Not Yet	Not Yet
	Status	Agreement executed with M/s RDS Project Ltd. on 28.10.2020. Invenory survey and design works are in progress.	Agreement executed with M/s EPIL on 14/12/2020	Agreement executed with M/s RDS on 14/12/2020	To be placed before Steering Committee for approval & LoA is to be issue.	To be placed before Steering Committee for approval & LoA is to be issue.

# Status of Package-II

			PKG -II, M/s L &	т		
Roa	ad No.	RKI-05	RKI-06	RKI-07	RKI-08	RKI-10
Road	d Name	Perumbilavu-Nilambur Road	Quilandy - Edavanna road	Palakkad -Perinthalmanna Road	Thavalam Mully Road	Mananthavady – Vimalnagar – Kulathada – Valad HS – Periya road
Di	strict	Malappuram	Malappuram	Palakkad	Palakkad	Wayanad
Length as	per ToR (km)	24.4	32.5	36.8	28.8	24.8
Length of Road as	s per actual site (km)	30.88	31.53	37.38	28.50	27.00
Catego	ry of Road	SH-39	SH-34/MDR SH-53		MDR	MDR
			Status			
Subi	mitted	✓	✓	✓	<b>✓</b>	✓
	Estimated Cost in Cr (Excluding 132.76 maintenance)		157.40	355.68	116.11	89.54
	Awarded Cost in Cr	144.00	189.76	323.10	132.81	102.83
	Awarded	M/s KMC Constrcutions	M/ s Shreedanya Construction Company	M/s KMC Constrcutions	M/s Akshaya Builders-EKK JV	M/s ULCC
	Approved by SC	✓	✓	✓	✓	✓
	LoA issued	✓	✓	✓	✓	✓
	Status	Agreement executed on 07-10- 2020	Agreement executed with M/s Sreedhanya Construction company on 08/10/2020. Invenory survey and design works are in progress.	Agreement executed with M/s KMC Constructions Ltd on 13/11/2020	Agreement executed on 28- 10-2020	Agreement executed with M/s ULCCS on 28.10.2020. Invenory survey and design works are in progress.

# Status of Pkg-III

				PKG -II	II, M/s LBI					
Road No.	1	2	3	4	5	6	7	8	9	10, Additional scope
Road Name	Mookannoor Ezhattumugham road and Blachippara Palissery road	Kakkadassery - Kaliyar road	Muvattupuzha - Theni (SH-43) road	Kumarakom- Nedumbassery road (proposed SH)	Neyyassery- Thokkumbansaddle road	Nenmara - Nelliyampathy road	Kodungallur- shornur (SH-22) road	Vazhakkodu- Plazhy (SH-74) road	Thrissur Kuttippuram road (SH 69)	Arakunnam-Amballoor- Poothatta-Piravam Road
District	Ernakulam	Ernakulam	Ernakulam	Ernakulam	Idukki	Palakkad	Thrissur	Thrissur	Thrissur	Thrissur
Length as per ToR (km)	20.30	20.60	15.75	21.03	28.50	30.71	34.00	22.64	29.98	7.00
Length of Road as per actual site (km)	19.95	20.176	16.18	21.40	31.916	30.47	34.35	22.72	33.00	7.98
Category of Road	MDR	MDR	SH	MDR	MDR	MDR	SH	SH	SH	MDR
				St	atus					
Estimated Cost in Cr	₹ 91.89	₹ 67.73	₹ 80.91	₹ 96.85	₹ 133.60	₹ 90.66	₹ 194.96	₹ 98.12	₹ 212.81	₹ 27.48
opening Date of Bids	02.11.20						02.11.20			
Bids Received	4 Bids ( Antech-RBL JV, SPL-AF JV, Marymath and Tarmat Ltd)		08-02-2021				3 Bids ( Marymatha, Gawar with Atcon India Ltd JV & Sredanya)			
Status	Under Technical evalution stage	Under Revised ESIA Report stage	Under Procuremnet Stage bids uploaded on 23/12/2020	NO dated 16/12/2020 received from KfW	Due to Reserve Forest it kept on hold by KfW	Due to Reserve Forest it kept on hold by KfW	Technical Evalution completed and sent to KSTP for Review & NO awaited from KfW	Under Revised ESIA Report stage	NO dated 16/12/2020 received from KfW	Under Revised ESIA Report stage

# Status Package-IV

				PKG -IV, M/s EGIS					
Road No.	1	2	3	4	5	6	7, Additional Scope	8, Additional Scope	9, Additional Scope
Road Name	Gandhinagar-Medical College-Babu Chazhikadan road- Kottayam- Parippu road- Athirampuzha Liessue- Kaippuzha-Mannanam- Pulikkuttissery- Parolickal- Muttappally road	Vadayar Chandappalam- Mulakkulam Road and Vadayar Kallattippalam Muttuchira road	Pathanamthitta Ayroor- Muttukudukkalllathupa di -Muttukudukka Prakkanam-Prakkanam Elavumthitta-Kulanada Ramanchira- Thannikkuzhy Thonniamala road	Mallapally-Komalam Paduthodu Kalloopara Chengaroor Komalam Kavungumprayar Pattakala, TMV road	Malamekkara Kunnathukala Chala Puthenchanda factory Junction Azad Junction road	Trivandrum Ponmudi road (From Nedumangad to Ponmudi)	Thattararnbalam- Michael Junction- Kochalummood- Mangankuzhy-Pandalam	Veeyapuram-Edathua- Puthukarry- Marnbuzhakkary- Kidangara-Kunnamgary- Kumarangary-Valady- Mullakarnthuruthy	Vayuttupuzha- Potheeppad Road
District	Kottayam	Kottayam	Pathanamthitta	Pathanamthitta	Pathanamthitta	Thiruvananthapuram	Allapuzha	Allapuzha	Ranni/Pathana mthitta
Length as per ToR (km)	21.95	24.7	28.12	22.65	8.6	41	21.8	21.35	35.00
Length of Road as per actual site (km)	20.197	22.476	28.204	23.129	7.866	41.75	18.657	21.45	38.5
Category of Road	MDR	MDR	MDR	MDR	MDR	SH	SH/MDR	MDR	MDR
				Status					
Estimated Cost in Cr	₹ 104.30	₹ 97.50	₹ 97.12	₹ 98.98	₹ 27.67	₹ 203.42	₹ 109.30	₹ 103.91	Not Yet
Bids Received	Sreedanya CC	Begorra Infrastructure & Developers Pvt Ltd	Tervuth Builders, Sreedanya CC & EKK Infra	2 Bids ( PCPL-SM JV), SPL-RM JV	2 ( RM & K N Madhusudon)		3 Bids ( Tarmat Ltd, Sreedanya & Begorra - PRL Jv)	Palathara Constructions , Sreedanya & Tarmat Ltd	
Status	Last date of receiving Bids on 18-12-2020	NO reiecved from KfW on 27-11-2020 for Technical Evalution Report , Financial Bid opened & Financial Report is done . Retender due to high quaoted price.	Last date of receiving Bids on 18-12-2020	Bids opened on 30-11-2020	Technical Evalution Report has done & sent to KfW. NO awaited from KfW	Under DPR Finalisation stage	Bids Opened on 30-11- 2020	Last date of receiving Bids on 18-12-2020	Draft DPR Submitted

# 6 Social Safeguard

Acquisition of 121.5 Ha of land for up-gradation of 7 roads covering 322 km which affected 20696 households including titleholders and non-titleholders. As per the 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 are required to link the two new bridges at Eranholi and Iritty. Action is being taken for the acquisition of those properties under the LA process and through negotiated purchase and rehabilitation of the affected PAPs.

# 6.1 Land Acquisition Status (LA)

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

SI No	Chainag	ges of the	The officer at		Date	since	Targeted date	How	much												
	road	where LA	whose	level	when	such	of finalization	land	area is to												
	required	d	case	is	case	is		be	acquired												
	From	То	pending		pending		pending		pending		pending		pending		pending		pending	g		(Ha)	
1.	27.100	27.100	KSTP	Kannur	Feb.20	19	31.01.2021	0.01	90												
			and	LA																	
			Tahsilo	dar,																	
			LAO																		
			Thalas	sery																	

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

No pending issues

# 6.1.3 Package 8-B - Konni- Plachery road:

Package	Description	Total Required	Total in	Total to be	
		(На)	Possession at	Acquired (Ha)	
			Start (Ha)		
Package 8B	Existing ROW				
	For Realignment	13.4435	13.4128	0.0307	
	Public Land to be Transferred	0.3820	0.3820	0	
	Grand Total	13.8255	13.7948	0.0307	

### 6.1.4 Status of Land Acquisition

SI No	Package & Road	Villages	Extent of land to be acquired	Current status	Remaining work
1	. 8A – Punalur- Konni (Punalur- Ponkunnam)	Pathanapuram	73 M <sup>2</sup>	Published the declaration U/s 19 of the RFCTLARR Act on 19.06.2020	<ul> <li>To conduct award enquiry</li> <li>To pass the award</li> <li>Disbursement of compensation and R&amp;R assistance.</li> </ul>

	=	Koodal	280 M <sup>2</sup>	BVR under	▲ Approval of D\/D
				BVR under preparation	<ul> <li>Approval of BVR</li> <li>Approval of DVS</li> <li>To publish declaration U/s 19 of RFCTLARR Act</li> <li>To conduct award enquiry and pass the award.</li> <li>Disbursement of compensation.</li> </ul>
2.	8B – Konni-	Sub Toal Mylapra	353 M <sup>2</sup> 151 M <sup>2</sup>	BVR under	Approval of R&R
2.	Placheri (Punalur- Ponkunnam)	тупарта	1311	preparation R&R Package submitted to LRC on 19.08.2020	<ul> <li>Approval of R&amp;R         <ul> <li>Package by LRC</li> </ul> </li> <li>Approval of BVR</li> <li>Approval of DVS</li> <li>Publication of declaration U/s 19 of RFCTLARR Act</li> <li>To conduct award enquiry and pass the award</li> <li>Disbursement of compensation and R&amp;R assistance</li> </ul>
		Ranni	206 M <sup>2</sup>	BVR under preparation	Approval of R&R     Package by LRC     Approval of BVR     Approval of DVS     Publication of declaration U/s 19 of RFCTLARR Act     Pass the award and conduct award enquiry     Disbursement of compensation.
		Chethakkal	251 M <sup>2</sup>	BVR under preparation	<ul> <li>Approval of BVR.</li> <li>Approval of DVS.</li> <li>Publication of declaration U/s 19 of RFCTLARR Act.</li> <li>Pass the award and conduct award enquiry.</li> <li>Disbursement of compensation.</li> </ul>
	Sub Tota	I	608 M <sup>2</sup>	•	oomponounom.
3.	3A – Thalassery - Kararode	Eranholi & Thiruvangad	1836 M <sup>2</sup>	<ul> <li>Possession of 4148 M² of land has been takeover on 30.07.2020</li> <li>Completed the award enquiry</li> <li>KSTP has released 6.5 Crores on 20.08.2020 for passing the award of 1836 M² land.</li> </ul>	Possession of 1836     M² of land can be     taken over on or     before 20.09.2020.

|--|

#### 6.2 Tree Cutting

The 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.

#### 6.3 Management of Construction induced Issues

Grievance Redressal Committees (GRC) constituted at the district level are functioning effectively under the Chairmanship of the District Collector. All grievances that cannot be resolved locally or at the site are referred to as 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 landslides, prevention of waterlogging, and provision of drainage are the most common issues during the construction phase. These are included in the BOQ and PAP works for implementation. Those issues concerning land value or higher compensation are referred to the State level Committee.

# 7 Grievance Management Report

(1st May 2018 – 30th November 2020) \*

		7 2018 – 30 <sup>th</sup> N	OVEILIBET 202	0)
SI No	Nature of Grievance	Total No. of	Total No. of	Remarks
		Petitions	cases	
		relitions		
			settled	
		01.05.2018	01.05.2018	
		to	to	
		31.10.2020	31.10.2020	
			31.10.2020	
1	2	3	4	5
1.	Land Acquisition/ Alignment	4	1	One Case from Muvattupuzha
	change			Division and three cases from
	onango			
				Kannur Division. Instruction have
				been given to Muvattupuzha
				Division for not proceed with LA
				because the roads are already
				handed over to PWD roads
				Division. Slight alignment change
				was allowed in Mattanoor town due
				to mass protest from Merchants
				and other organizations.
	landamenta anno anno diam af	0	0	and other organizations.
2.	Inadequate compensation of	0	0	
	land/ Category change of the			
	land			
3.	LAR Cases	209	161	30LAR cases are pending in
]	00000			various Sub Courts and Appeal
				pending for 18 cases in various
				appellate courts.
4.	Variation in the extent of land	0	0	
5.	Acquisition of missed structures/	0		
0.	Part / Full			
		1	0	The complement demands MCTD to
6.	Inadequate compensation for	1	0	The complainant demands KSTP to
	structures			reconstruct a new house or pay
				Rs.15, 00,000/- as compensation
				for the building. KSTP has allotted
				a total of Rs. 5,32,283/- as
				compensation for 86 M <sup>2</sup> land and
				value of the old building.
				Construction works completed in
				this area without making any
				damages to the building. (realigned
				the road within the available land)
			ļ	
7.	Provision of retaining wall to	225	113	Major cases are from Package 8 B
	protect structure			& 8C area. New proposals are
				pending. It will be addressed along
	Destruction of the	0.4	10	with civil works in the specific area.
8.	Protection of well	34	10	All remaining cases are from
				Package 8B & 8C. It will be
				addressed at the time of civil works
				in the specific location.
0	Conversion of part valuation of	0	0	are openio reduction.
9.	Conversion of part valuation of	"		
	structure to full or vice versa			
10.		98	98	
11.	Extension of time limit for	11	9	One PSU, KSRTC, requested more
	demolition			time to demolish the building.
				Another one case is in Package 3
	5			A- auction completed.
12.	Restoration of access to	235	155	63 cases pending in Package 8B
	property			and 8C, it will be addressed during
	l. , ,			civil works in these locations. 3
				cases pending under KSTP
				Muvattupuzha Division, and 14
				cases are progressing in Package
				3A and 3B

13.	Providing new access	38	36	One each case pending under Muvattupuzha and kannur Divisions. It will be addressed soon.
14.	Water logging issues	5	5	
15.	Drainage	28	24	2 each Works pending under Muvattupuzha & kannur Divisions. It will be addressed soon.
16.	Encroachment by contractor	2	1	One case in Thiruvalla By pass section. Letter has been issued to Taluk Surveyor for verification and resolves the issue.
17.	Damage to adjacent property	8	7	Work in progress at Mattanoor Junction, damage will be rectified at the earliest.
18.	Shifting Transformer	20	11	Pending cases are from Package 8 B & 8C.
19.	Non-payment of compensation	10	4	Non production of valid documents for claiming compensation.
20.	Reconstruction of cross drainage	17	7	All the 10 cases are from Package 8B & 8C

#### 7.1 Compliance of Mission Recommendation

#### 7.1.1 Responsibilities of Sociologist in the Division

The role and responsibilities of sociologist in the division is to implement a resettlement action plan (RAP) – ensuring that the affected person/family gets the right information about land acquisition, process and procedures, compensation details and date of payment, persons responsible for grievance redress and counseling 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 the pending land acquisition, the 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 a 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 the mitigation of construction induced negative impacts. Identification and reporting of loss of access from the 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, a threat to buildings and wells, and other utilities (water, electricity, telecom & cable services requiring protection from damages, prevention of flooding, waterlogging 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 is done without reasonable advance notice and without providing temporary measures to provide access. Temporary measures should be replaced by a 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 the subject matter with the date and time of each activity spliced with relevant photos. The project is time-bound. The 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 the site for each PAP. Hence verification at the site is necessary.

## 7.2 Payment to the consultants and Contractors as on end of December 2020:

SI. No	Firm/Organisation	Works Services	Amount in INR
1	M/s Egis India JV -	CSC For Packages I, II, IIIA, III B, Iv A, IV B, V,	55,76,15,666/-
2	M/s MSV International	CSC for Package VI	4,67,41,766 /-
3	M/s Vic Roads		11,07,89,698 /-
4	M/s L&TP Ramboll	Transaction Advisors	4,22,10,480 /-
5	M/s EptisaServicious De Ingeneiria	PMC for KSTP-II Project	2,87,41,503 /-

#### **Contractors**

No	Name of Contractor	Project / Pkg No	Amount in INR
1	M/s.RDSProjects Limited	Kasargod-kanhangad-SH-57 KSTP-2/UG/1	1,22,85,65,038 /-
2	M/s.RDS Projects Limited	Pilathara-Pappinssery-SH-67 KSTP-2/UG/2	102,60,01,677 /-
3	M/s.Dinesh Chandra R. AgarwalPvt.Ltd.,	Thalassery-Kalaroad-SH-30 KSTP-2/UG/3A	108,37,63,220 /-
4	M/s.GHV-EKK Infrastructure & Co.	Kalaroad-Valavupara-SH-30 KSTP-2/UG/3B	193,67,07,332 /-
5	M/s.GHV-EKK Infrastructure & Co.	Thiruvalla bypass KSTP-2/UG/4A	16,98,56,283 /-
6	M/s.EKK Infrastructure Ltd.,	Thiruvalla town KSTP-2/UG/4B	4,83,87,988/-
7	M/s.GHV-EKK Infrastructure & Co.	Kazhakuttom-Adoor KSTP-2/OL/8	124,43,05,031 /-
8	M/s.EKK Infrastructure Ltd.,	Konni- Placherry KSTP-2/OL/8B	27,95,78,983/-
9	M/s. Sreedhanya Construction Company & M/s Nath Infrastructures	Punalur – Ponkunnam road KSTP-2/OL/8C	58,52,83,093/-
10	M/s.EKK Infrastructure Ltd.,	Painavu-Thannikandom KSTP-2/PMT/RKI 3	1,90,80,000/-
11	M/s.EKK Infrastructure Ltd.,	Adoor- Chenganoor KSTP-2/PMT/RKI 4	4,90,50,000/-

# **8 Compliance Governance Improvement Action Plan**

# 8.1 (Micro level implementation will be done with help of PMC)

1. Ta	nke 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. Ac	ddress 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. B	uild a New Foundation		
•	Develop an action plan to strengthen	:	All managerial positions filled
	integrity risk management w/oversight by		
	the 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
	versa PMT and PWD officials as well as		
	contractors and the public		

# 8.2 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		

	•	Revise the Financial Management manual		This is being done	
	•		•	This is being done	
		to detail the process and individual			
		accountabilities			
	•	Consolidate in a decision memo to the	:		
		Project Director the view of engineers and		This is being arranged	
		finance staff			
L					
	•	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			
<u> </u>		•	ļ	Mell 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 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. 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 collision risks		Sidding to on	
L			ļ		
	•	Develop more precise cost estimate so	:	This will be done	
		you can gauge if collusion risks are			
		elevated			
$\vdash$	•	Require independent bid certificates	:	This is being insisted	
$\vdash$	•	Institute a code of conduct for PMT and		Will be instituted	
	-		•		
		PWD officials re-reporting of misconduct,			
L		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			
C. Quality Assurance					
$\vdash$	•	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 a	:	This has been developed and passed on to the Field	
		clear escalation mechanism with a specific		Engineers. Quality audit as per the Quality Assurance	
		focus on structural/ bridge works		protocol is underway	
		10040 on oli dolatali, bilage works		p. 5.5550 to an aoi may	

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

#### 9 ACCIDENT REPORT

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

The monthly accident report for the Period of December-2020 is as below for Package III A and III B. Since work is not going due to the Covid-19 pandemic 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. There were no accidents data December-2020 in Pkg 3A & 3B was available.

- 9.1 Accident Report Pkg-3A
  Nil
- 9.2 Accident Report Pkg-3B
  Nil
- 9.3 Accident Report Pkg-8B
  Nil
- 9.4 Accident Report Pkg-8C
  Nil

# 10 Site Work Progress Photographs

# 10.1 Package -1 -Photographs



Chandrigiri Bridge Expnasion Joint



Bekal Port Auto parking



Bekal fort Road

# 10.2 Package -2 —Photographs



Oxbow land



Ramapuram Existing bridge approach

## 10.3 Package -3A -Photographs



Abutment Cap @ A2 2+910



Pedestal @ Pier P1 – P2 Ch: 2+910



Girder Launching Completed B/w Pier P1-P2



DBM LAYING @ 28+620-28+830 RH



Gabion 3<sup>rd</sup> Layer @ Ch : 22+312 – 22+336 RHS



**DBM LAYING @ 28+620-28+900 LHSDBM** 

#### 10.4 Package -3B -Photographs



Iritty Bridge at km 42+198 Hand rail



Pazhassi Park work



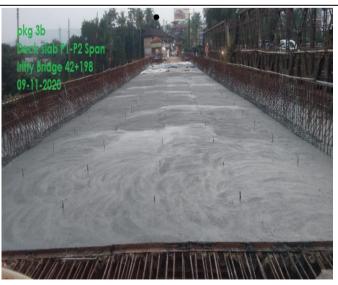
• RCC retaining wall Raft Km 50+720 to 50+735 RHS



Pazhassi Park work



• Iritty Bridge at km 42+198 Crash Barrier P1-P2



• Iritty Bridge at km 42+198 SPAN P1-P2 Box Girder Deck slab concrete completed

## 10.5 Package -4A —Photographs



Deck slab concrete P3-P2, Viaduct



Hon.MLA visited the site



Cross Girder concrete at A1, Viaduct



Deck slab concrete completed in all spans of viaduct



**Expansion Joint fixed at P6** 



Dirt wall concrete work at A1, Viaduct

# 10.6 Package -4B —Photographs



Jolly Silks Junction, Thiruvalla Town



Mavelikkara Junction, Thiruvalla Town

## 10.7 Package -8A-Photographs



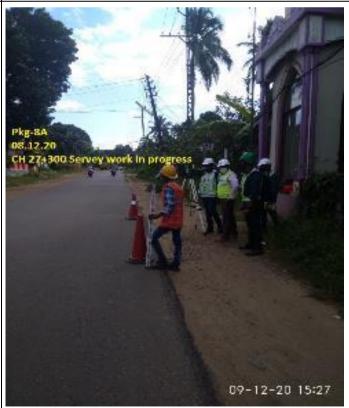


**Traffic Survey work in progress** 

**Culvert cleaning work in progress** 



**Culvert cleaning work in progres** 



Survey work in progress

#### 10.8 Package -8B-Photographs





GSB laying work in progress at km.47+770 to 850

**Curing work in progress** 

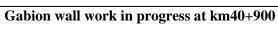




Subgrade work in progress at km.35+200 to 350

Toe wall Raft work in progress at km.34+457 to 34+490







SG work in progress at km.59+600 to 59+700

## 10.9 Package -8C-Photograph





Laying WMM 62+940 - 64+400 RHS

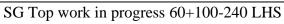




BM Laying at Ch63+030...

16.12.20-DBM Laying at CH62+960 RHS







Toe wall work in progress

#### 10.10 RKI 2 Road -( Chemmanar-Gap road) Photographs



RKI-2

Loint inspection done for estimation of road potholes and damged existing pavement areas by client and contractor from Important to 29+935

C&G work in progress

**Joint Inspection conducted with client** 



**Checking Road width details** 



Culverts inventory levels checking work in progress

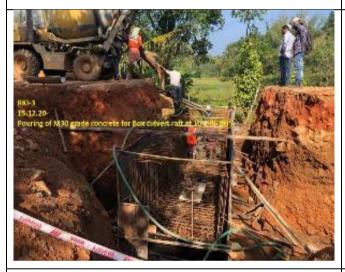
#### 10.11 RKI 3 Road -( Painavu-Ashokakaval road) Photographs



Laying of PCC at 11+821 Box culvert BH



Gabion wall 6th lift at 0+985 LHS



Pouring of M30 grade concrete for Box culvert raft at 10+996 BHS..



Jointly inspection along with KSTP AE and Panchayati water Authority AE..



Site visited Authority Engineer ,TL,RE along with KSTP team SE,EE,AE and EPC contractor representatives.



Checking for reinforcement of Box culvert at 3+565 RHS.

#### 10.12 RKI 4 Road -(Adoor to Chengannur) Photographs

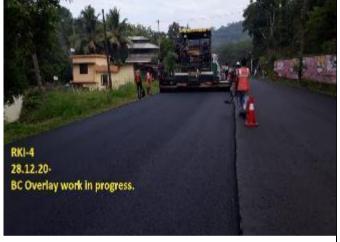


RXIA 15.12.20-Galsion wall work in progress

Culvert excavation work progress at km.99+236

Gabion wall work in progress

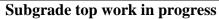




BC overlay work in progress

**BC** overlay work in progress







106+450 LHS Existing BT removal

## 10.13 SCDP Road -Component B -Photographs





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