THIRTEENTH KERALA LEGISLATIVE ASSEMBLY

COMMITTEE
ON
PUBLIC ACCOUNTS
(2014-2016)

FIFTY EIGHTH REPORT

(Presented on 9th July, 2014)

SECRETARIAT OF THE KERALA LEGISLATURE
THIRUVANANTHAPURAM
2014

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On

Paragraphs relating to Public Works Department contained in the Report of Comptroller and Auditor General of India for the year ended 31 March 2011 (Civil)

1085/2014.

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INTRODUCTION

I, the Chairman, Committee on Public Accounts, having been authorised by the Committee to present this Report, on their behalf present the 58th Report on paragraphs relating Public Works Departments contained in the Report of the Comptroller and Auditor General of India for the year ended 31 March 2011 (Civil).

The Report of the Comptroller and Auditor General of India for the year ended 31 March 2011 (Civil) was laid on the Table of the House on 22nd March, 2012.

The Committee considered and finalised this Report at the meeting held on 30th June, 2014.

The Committee place on record their appreciation of the assistance rendered to them by the Accountant General in the Examination of the Audit Report.

DR. T. M. THOMAS ISAAC,
Chairman,
Committee on Public Accounts.

Thiruvananthapuram,
9th July, 2014.

REPORT

PUBLIC WORKS DEPARTMENT

AUDIT PARAGRAPH

KERALA STATE TRANSPORT PROJECT

Introduction

The Kerala State Transport Project (KSTP), aided by the International Bank for Reconstruction and Development (IBRD)*, was launched in June 2002 by the Government for improving the infrastructure in the State road sector. The project included transport corridor upgradation of 671.90 km. (578.9 km. of roads and 93 km. inland waterways), maintenance of 1009 km. of roads, implementation of road safety measures and institutional strengthening of Public Works and Irrigation Departments at a cost of ₹ 1255.68 crore, ₹ 247.20 crore, ₹ 20.16 crore and ₹ 45.60 crore respectively. Out of 578.9 km. of road upgradation works, it was decided to take up 254.70 km. of roads in Phase I and 324.20 km. of roads in Phase II of the project.

Phase I of the project consisted of upgradation works of roads (254.70 km.), road maintenance component of 1009 km. (37 packages) and upgradation of inland water transport canals (93 km.). Upgradation work of roads was again divided into three packages (KSTP-1: 127.1 km., KSTP-3: 49.2 km. and KSTP-4: 78.4 km.). It was also decided to take up road maintenance components of 1009 km. in three years. The first year included 13 packages (RMC-1 to 13–339.1 km.), the second year included 13 packages (RMC-14 to 26–350 km.) and third year included 11 packages (RMC-27 to 37–320 km.).

Phase II of the project was designed for the upgradation of roads of 324.20 km. and was divided into three packages (KSTP-5: 102.9 km., KSTP-6: 90 km. and KSTP-7: 131.3 km.).

Due to time and cost over-runs, the project was restructured (June 2008) by reducing the length of upgradation to 254 km. and by enhancing the length of maintenance of roads from 1009 km. to about 1200 km. There was no revision in the loan amount. The project period was 2002-2007, which was extended up to 31 December 2010. The major components of the restructured project were substantially completed and the loan was closed on 31 December 2010.

* An arm of World Bank.

The total estimated cost of the project was US$ 336 million (₹ 1612 crore @ ₹ 48 per US$), of which the IBRD share was US$ 255 million (76 per cent), equivalent to ₹ 1224 crore. The remaining funds of ₹ 388 crore (24 per cent) were to be provided by the Government of Kerala.

Organisational set-up

A Steering Committee was constituted (October 2001) consisting of the Principal Secretary, Public Works Department; the Secretary, Finance Department; the Secretary, Irrigation Department and the Chief Engineer (CE), Roads and Bridges. The Government formed (April 2002) a separate Project Management Team (PMT) headed by the Project Director (PD), an Engineering wing headed by the Chief Engineer (Projects) and a Finance wing headed by the Finance Controller, for implementing the project. The upgradation works were supervised by Construction Supervision Consultants (Engineers), who reported to the PMT through the CE(Projects).

Audit Findings

The deficiencies noticed in audit in the implementation of the project are discussed in the following paragraphs:

Planning of the project

The main deficiency of planning of the project was the inordinate delay in the land acquisition process. Land required for widening of the roads was not acquired and handed over to the contractors in time, and hence the works were delayed. The land acquisition procedure was initiated only after inviting bids, as Government decided (October 2000) to initiate the land acquisition process after obtaining the sanction of the IBRD loan. This ultimately contributed to delay in implementing the project and resultant cost over-runs.

FINANCIAL MANAGEMENT

Receipts and Expenditure—Arrangement for financing the project

The Government of India (GOI), the State Government and IBRD signed a loan and project agreement in May 2002. As per the agreement, GOI was to open a special account with the Reserve Bank of India to receive project disbursements from IBRD and then make these funds available to the Government under the standard Additional Central Assistance mechanism on a 70 per cent loan and 30 percent grant basis. All project funds were to be budgeted in the Government's budget as an identifiable single budget item each year. The estimated cost of the project was US$ 336 million and it was to be shared between IBRD (US$ 255 million equivalent to ₹ 1224 crore) and the Government (US$ 81 million equivalent to ₹ 388 crore) in the ratio 76:24. The project period was from June 2002 to December 2007. The US$ exchange rate also varied from ₹ 48 in 2002 to ₹ 39 in 2007 and from ₹ 39 in 2007 to ₹ 45.55 in 2010. The variation in the exchange rate of US$ resulted in reduction of the expected loan amount in Indian rupees from ₹ 1224 crore to ₹ 1036.96 crore and the State's share increased from ₹ 388 crore to ₹ 593.66 crore. The details of receipts and expenditure during 2002-03 to 2011-12 (up to 31 July 2011) were as detailed in Table 2.24:

TABLE 2.24: DETAILS OF RECEIPTS AND EXPENDITURE UP TO 2011-12

(₹ in crore)

Year	Receipts				Expenditure
	IBRD +GOI	GOK	Other sources*	Total	
Up to 2005-06	467.31	237.35	7.77	712.43	703.07
2006-07	145.28	56.70	1.22	203.20	158.41
2007-08	36.45	115.84	1.87	154.16	84.55
2008-09	43.65	14.32	4.14	62.11	132.06
2009-10	101.77	176.56	2.87	281.20	279.69
2010-11†	181.14	54.25	1.01	236.40	196.10
2011-12†	61.36	(-)61.36	2.50	2.50	55.72
Total	**1036.96**	**593.66**	**21.38**	**1652.00**	**1609.60**

† provisional figure

Source: Certified annual accounts and details collected from KSTP

* Sales of tender forms, bank interest, liquidated damages, restoration charges, tree cutting charges and other receipts.

Audit scrutiny revealed the following:

- The actual cost sharing ratio between IBRD and the Government of Kerala were worked out as 63.59 per cent (₹ 1036.96 crore) and 36.41 per cent (₹ 593.66 crore) against the envisaged 76 per cent (₹ 1224 crore) by IBRD and 24 per cent (₹ 388 crore) by the Government of Kerala, due to fluctuation in the exchange rate of the US dollar and increase in the cost of acquisition of land.
- The PMT failed to get the expenditure of US$ 22 million (₹ 105.60 crore) reimbursed from IBRD due to delayed execution of works. The failure had resulted in increase of the State Government's share and a loss of ₹ 29.04 crore as assistance from GOI.

CONTRACT MANAGEMENT

Indecision of KSTP resulted in hardships to the public and extra expenditure of ₹ 60.75 crore

The work of KSTP I was awarded (November 2002) to a contractor at an estimated cost of ₹ 215.50 crore with the stipulated date of completion as 15 December 2005. A scrutiny of the work records revealed the following:

Owing to delay in handing over the site, delay in obtaining clearance from the Pollution Control Board for erecting bitumen mixing plant, etc. the work was prolonged and the contractor sought extension up to 31 May 2007. The contract was extended till February 2007.

As per the contract conditions, the monthly interim payments of upgradation works, had to be made to the contractors within 28 days of submission of Interim Payment Certificates (IPC) to KSTP. KSTP followed this procedure till April 2006 and thereafter, discontinued payments without any recorded reasons, which resulted in the termination of the contract by the contractor in December 2006. At the time of termination, works amounting to ₹ 106 crore remained to be completed.

The work was re-tendered and the rates quoted by the bidders were very high compared to the previous contractor. Hence KSTP was forced to enter (December 2007) into a supplemental agreement with the previous contractor at an enhanced rate of 72.50 per cent on all items (except general items) in the Bill of Quantities. The extra expenditure incurred on this account worked out to ₹ 60.75 crore (₹ 55.96* crore difference between the cost of work as per original contract and on revised arrangement plus ₹ 4.79 crore for the temporary maintenance of the roads to make them traffic-worthy). The contractor also reserved the right to refer the claim to arbitration for prolongation cost and losses (of the contractor) up to 4 December 2006, subject to a maximum of ₹ 35 crore. Final decision of the arbitration was awaited (September 2011).

Delay in making timely payments and not taking timely decisions on extension of contract delayed the benefits of the road to the public for one and half years and caused extra expenditure of ₹ 60.75 crore and a contingent liability of ₹ 35 crore.

The PD stated (October 2011) that the extra expenditure worked out by Audit was not correct. He stated that if the work was continued without termination and completed in January 2011, the payment to the contractor would have been ₹ 273.32 crore and hence, the excess payment would work out only ₹ 18.98 crore (₹ 292.30 crore−₹ 273.32 crore). He also stated that the loss of ₹ 4.79 crore on maintenance could not be considered as loss because the maintenance would be necessary had the previous contract been continued.

The reply is not acceptable because of the following reasons:

(i) The due date for completion of the work could not be taken as January 2011 as the date was extended primarily due to the mismanagement of the

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* Original contract value ₹ 215.50 crore-Amount excluded from the original contract ₹ 5.53 crore = ₹ 209.97 crore + cost escalation on completion of original contract ₹ 26.37 crore= ₹ 236.34 crore; Final Contract price on completion – Contract price worked out by audit= ₹ 292.30 crore – ₹236.34 crore =₹ 55.96 crore.

project team and termination of the contract in December 2006 by the contractor as the bills were not paid by PMT as per the agreement. The work was suspended from December 2006 to November 2007 for which there was no justification.

(ii) Even if the calculation of excess payment by the PD is taken as correct, there was a loss of ₹ 18.98 crore which could not be taken to be a small amount. Moreover, the delay of one year in completion (December 2006 to November 2007) was directly attributed to the termination of contract for which the project team was responsible.

Excise Duty Exemption on a State financed work

The work 'Heavy maintenance of Vizhinjam-Kovalam-Cheruvarakonam-Kaliyikavila road (RMC 63)' was tendered on 21 July 2010 for an estimated cost of ₹ 27.27 crore with the period of completion as nine months. The work was awarded in October 2010 and had not been completed (October 2011). The work was taken up by KSTP on the presumption that it would be executed with the IBRD loan and the same was mentioned in the Notice Inviting Tender. However, IBRD rejected (July 2010) the proposal, primarily due to the reason that the work would not be completed before the closure of the loan. The work was funded from the State fund. Excise duty exemption to the tune of ₹ 98.33 lakh* was given to the contractor for the above work as the provision for exemption was included in the tender documents. This exemption, which was available only for IBRD funded works, should have been excluded from the tender conditions, by means of an

* (2,343 MT Bitumen & NRMB@ ₹ 27,000/MT plus 170 MT Bitumen emulsion @29,020/MT) multiplied by 14 per cent Central Excise Duty and three per cent Education Cess.

addendum or during the pre-bid meeting held in August 2010. The exemption of excise duty on a State financed work was a violation of the exemption conditions stipulated Notification No.108/95 – CE dated 28th August, 1995.

The matter was referred to the Government (September 2011); reply has not been received (October 2011).

Unjustified reckoning of price indices of plant and machinery in calculation of escalation

In the case of KSTPs III and IV, a provision was included in the agreement for price adjustment for increase or decrease in the cost of plant and machinery and spares procured by the contractor at 30 per cent as per the agreed formula. In terms of the General Conditions of Contract, plant included apparatus, machinery and other equipment intended to form part of permanent works. As KSTP III and IV were road projects, plant and machinery did not form a part of the permanent work as defined in the General Conditions of Contract. By including a provision for price escalation towards plant and machinery (which did not form part of the permanent work), KSTP bestowed undue benefits of ₹ 12.56 crore to the contractors.

The PD replied (August 2011) that the observation of audit that the plant and machinery was not forming part of the permanent work and the adjustment in this regard was an undue benefit to the contractor was not correct. It was also stated that the National Highways Authority of India and Ministry of Road Transport & Highways (MORTH) had followed the same procedure.

The reply of the PD is not acceptable as plant and machinery was not a direct input to any permanent work and it would be the property of the contractors after the termination of the contracts. Moreover, the terms and conditions of contract had clearly defined the plant and machinery. The price escalation allowed by KSTP for plant and machinery was against the definition given in the contract.

PROJECT IMPLEMENTATION AND PROGRAMME MANAGEMENT

TARGETS AND ACHIEVEMENTS

The physical targets and achievements of the three major components of the project were as follows and details of the sub-components are described in Appendix III:

TABLE 2.25: PHYSICAL TARGETS AND ACHIEVEMENTS OF THREE MAJOR COMPONENTS

Component	Original target (OT)	Revised target(RT)	Achievement	Percentage of achievement with respect to RT
Corridor upgrading	671.90 km.	331 km.	254 km.	76.73
Road maintenance	1009 km.	1200 km.	1156 km.	96.33
Road safety engineering programme	50 black spots	30 black spots	37 black spots	123.33

Source : Project Appraisal Document and Implementation Completion Report

In addition to the above physical target, the project also envisaged reduction in roughness of the road to a level of less than 4.5m/km., reduction of travel time by 20 per cent and reduction in road accidents. Achievement of reduction in roughness index* was commendable as the roughness index obtained was less than 4.5 m/km.

* International roughness index is used to define a characteristic of the longitudinal profile of a travelled wheel track and constitute a standardized roughness measurement. The commonly recommended units are meters per kilometer (m./km.) or millimeters per meter (mm./m.)

Audit scrutiny revealed the following:

- In the case of corridor upgradation works, the original target was reduced by more than 50 per cent when the project was restructured. The revised target was also not achieved due to non-implementation of 77 km. of inland water transport canals. The KSTP I & IV packages were also not fully completed as the side drain works were incomplete in some stretches.
- The revised target fixed for the completion of work on black spots* was 30 and KSTP showed that 37 had been completed. The claim of KSTP was not correct. It was seen that KSTP completed the works on only 25 black spots and the figure of 37 was arrived at by showing more than one work done at the same spot and reckoned as a different black spot.
- As per the State Crime Records Bureau's data, the number of accidents in all the State roads reduced from 42363 to 35046 during the years 2005-2010, whereas the fatality rate of accidents was on the higher side. No separate study was conducted to assess the accident and fatality rates on KSTP roads.

Time and Cost over-runs

The upgradation packages and Road Maintenance Component (RMC) works under Phase I of the project were to be completed by December 2005 and December 2006 respectively. Phase I of the project included upgradation packages, road maintenance component, road safety works and institutional strengthening action plan. Delay in land acquisition, frequent transfer of PDs, inadequate supervision by engineers etc. resulted in non-completion of Phase I of the project in time.

It was seen that the physical target of upgradation of roads was reduced from 578.9 km. to 254 km., showing a reduction of 56.12 per cent, whereas the

* Accident prone areas in roads.

percentage of reduction of expenditure was 40.86 (expenditure decreased from 1214.88 crore to ₹ 718.51 crore*). As a result, the cost per kilometre for the upgraded roads in Phase I increased from ₹ 2.09 crore to ₹ 2.82 crore, showing an increase of 35 per cent.

The physical targets fixed for the road maintenance component were revised from 1009 km. to 1200 km. and 1156 km. of the work had been completed. An amount of ₹ 612.04 crore was spent against the original allocation of ₹ 279.36 crore. The actual completion of RMC work was increased by 14.57 per cent but the percentage of enhancement in cost was 92.27. In respect of other components in Phase I an amount of ₹ 100.83 crore was spent against the allocation of ₹ 122.50 crore. The total expenditure for the project was ₹ 1612.67 crore including the cost of land acquired for Phase II (₹ 181.29 crore).

The allocation and expenditure of the project were as detailed in Appendix III.

The PD replied (October 2011) that if surrender of loan of US$ 22 million (₹ 105.60 crore) and inclusion of about 200 km. of additional heavy maintenance of roads as a substitute to Phase II road improvement and resurfacing works was considered, the excess of expenditure over allocation would work out to 19 per cent.

The reply is not acceptable as the surrender of ₹ 105.60 crore would only reduce the allocation and not the expenditure. Besides, additional heavy maintenance of 200 km. could not be a substitute for upgradation works of 324.20 km. intended during Phase II of the project.

Land Acquisition

Land acquisition was essential under road upgradation packages for widening up to 15 m., relaying the pavements, side drain works, cross drainage works and reconstructing/widening of existing bridges and culverts.

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* ₹ 715.09 crore for Phase–1 including land acquisition charges and ₹ 3.42 crore as balance work of KSTP IV executed through the work of RMC 48.

The quantum of funds earmarked for Land Acquisition (LA) and rehabilitation of project-affected persons for Phases I and II of the project and expenditure incurred thereon were as detailed in Table 2.26:

TABLE 2.26: TARGET, ACHIEVEMENT AND EXPENDITURE OF LAND ACQUISITION

Particulars	Area of land (Ha.)		Land acquisition, Rehabilitation & Resettlement (R&R)	
	Assessed	Acquired	Allotment	Expenditure
			(₹ in crore)	
Phase I	42.23	65.78	67.44	108.20
Phase II	72.03	110.22	114.96	181.29
Total	114.26	176.00	182.40	289.49

Source: Details collected from PMT

The following deficiencies were noticed during audit scrutiny:

- There was excess expenditure of ₹ 107.09 crore for land acquisition and R&R compared to allotment and actual expenditure. The reasons for the excess expenditure were as under:
- The extent and cost of the land acquired went up by more than 50 per cent of the original projection.
- Government decision to acquire land only after getting approval from IBRD delayed the land acquisition process for Phase I. The acquisition was started only in 2002 and continued till 2008.
- The land acquisition function was centralized and entrusted (April 2002) to a separate wing at KSTP headquarters, headed by the Director of Land Acquisition for Road Projects to speed up land acquisition activities. The office was abolished in June 2005 as centralization did not speed up the land acquisition activities.
- The estimation of the Project Co-ordination Consultant* with respect to the number of families affected by the project was incorrect as the actual

* A Project Co-ordination Consultant (PCC) was engaged to assist PWD in project preparation and management, introduce project design international standards and introduce PWD staff to internationally accepted project preparation practices. M/s Louis Berger International Inc., USA based firm was the PCC for KSTP.

number of families affected was 30811 against the estimated number of 20455 families (8313 families in Phase I and 12142 families in Phase II).

- KSTP was not able to acquire land at certain points where upgradation works were to be taken up due to public obstruction, court cases etc., which resulted in non-construction of 12.9 km. of side drains in KSTP I roads. The resultant adverse impact on the life and safety of the roads in these stretches could not be ruled out.

The PD admitted (October 2011) that land acquisition activities were started only after getting clearance for the project from the bank. He also stated that a Special Officer with field officers was also deputed for effective acquisition of land. But this was delayed due to non-availability of revenue staff. Entrusting the work to a private agency with experience also did not materialise due to objection from the revenue staff.

PROVISION IN BILL OF QUANTITIES FOR CONTRACTORS' OBLIGATIONS

General items

The guidelines of the World Bank and the General Conditions of Contract (GCC) stipulated that contractors were responsible for providing the following items at their own cost:

- Security for the stipulated period in the form of bank guarantee or performance bond for the prescribed value to protect the employer's interest in case of non-performance of the contractor vide clause 10.1 of Conditions of Particular Application.
- Insuring the works, plants and machinery and third parties vide the preamble to the Bill of Quantity (BOQ) and clause 18.2 of GCC.
- Rectifying the works during the defect liability period vide clause 11.2 of GCC.

On verification of the contract documents, it was noticed that the above items were included in the BOQ of the works of KSTP I, III and IV, contrary to the General Conditions of Contract, without mentioning the corresponding role of contractors in the agreement, which resulted in extra payment of ₹ 9.84 crore as detailed in Appendix III.

In the exit meeting, the Secretary, Public Works Department agreed (October 2011) to the fact and stated that consistency would be taken care of in future contracts.

Providing safety barricading, signals, etc. for construction zone

Contracts of the three upgradation works provided that the contractors should take all necessary measures for safety of traffic during construction and provide, erect and maintain barricades, including signs, markings, flags, lights and flagmen as may be required by the engineer for the information and protection of traffic approaching or passing the sections of the roads under improvement. Contrary to the above provisions, the Project Co-ordination Consultant provided separate BOQ items and ₹ 94.67 lakh was paid to contractors as shown in the Table 2.27:

TABLE 2.27: DETAILS OF INCIDENTAL ITEMS INCLUDED IN BOQ AND PAYMENT MADE

Work	Quantity as per BOQ Linear metre	Rate/ Linear metre	Amount (₹ in lakh)	Quantity of work done (Linear metre)	Payment made (₹ in lakh)	Length of road (in Km.)
KSTP I	10000	207	20.70	3600	7.45	127.11
KSTP III	10000	1460	146.00	5700	83.22	49.20
KSTP IV	10000	213	21.30	1880	4.00	78.40
Total			188.00		94.67	254.71

Source: Agreements and Interim Payment Certificates.

The quantities provided in the BOQ were the same in all the three works, though the length of the roads varied considerably. The rates [rate/Linear metre (lm)] of the contractors were also not comparable as the type of works were not specified in the contract.

In reply to an audit observation, the PD admitted (August 2011) that barricading and connected works were incidental items of work and would be the responsibility of the contractor. The PD also justified the inclusion of the items in the BOQ stating that the claim of the contractor could be limited to the quantity included in the BOQ.

The PD's reply, however, ignored the fact that the contractors would be paid for doing the work which they were required to do at their own expense.

Tender evaluation and award of works

(i) *Injudicious evaluation and award of RMC works*

In accordance with clause 4.5.A (a), (b) and (c) of the procurement guidelines of IBRD, the contractor should have minimum annual financial turnover, completed similar work satisfactorily and executed minimum quantities of work, respectively. It was also stipulated in clause 4.5 C *ibid* that to qualify for a package of contracts for which bids were invited in one Invitation For Bids (IFB), the bidder must meet the aggregate of qualifying criteria for the individual contracts. KSTP invited tenders for 17 RMC works through a single notification. On evaluation by the PMT, one contractor became the lowest (L1) in RMC 34 and 35. However, the said contractor did not have the qualification to be awarded both the works together and he was awarded RMC 34. The RMC 35 was awarded to the third lowest (L3) contractor, as the second lowest (L2) contractor was not qualified. Had the PMT awarded the work of RMC 35 to L1 and RMC 34 to L2, an amount of ₹ 2.72 crore could have been saved as detailed in the Table 2.28:

TABLE 2.28: DETAILS OF L1, L2 CONTRACTORS IN RESPECT OF RMC 34 & 35

(₹ in crore)

RMC No.	Bid amount of L1 contractor	Bid amount of L2 contractor	Bid amount of L3 contractor	Work awarded to and amount (1)		Correct allocation as per audit (2)		Excess amount (1)-(2)
				Contractor	Amount	Contractor	Amount	
RMC 35	14.59	16.88	17.84	L3	17.84	L1	14.59	3.25
RMC 34	15.46	15.99	17.84	L1	15.46	L2	15.99	(-)0.53
Total					33.30		30.58	2.72

Source: Tender Evaluation Report.

The PD replied (October 2011) that L1 was not qualified for RMC 35 as per Clause 4.5.A (b) and if the works were awarded as pointed out in audit, IBRD might have refused the reimbursement.

The reply is not acceptable as the L1 was disqualified only on combined evaluation but individually qualified for both the works (RMC 34 & 35). The PMT did not explore the possibility as suggested by audit in the above table at the time of evaluation of tender. If it was done, the payment of ₹ 2.72 crore could have been avoided.

EXECUTION OF WORKS

Non co-ordination between various agencies

The work 'RMC 47–Additional heavy maintenance work of Ettumanoor-Ernakulam road' was awarded on 12 December 2008. During the course of execution of the work, the Kerala Water Authority (KWA) executed (October 2009) a Memorandum of Understanding (MoU) with KSTP to restore the road after re-laying a pipeline from Thalayolaparambu to Vaikom (Ch.19/500 to 26/284). As per the conditions of the MoU, KWA had to complete the relaying work by November 2009. However, the work was completed only on 15 April 2010 with a delay of four and a half months due to the delay in commencement of pipe laying works by KWA. In the MoU, KWA agreed to restore the road as per the IRC and MORTH specifications. However, after the execution of the work by KWA, undulation on the surface of the road, breakage of old BT edge and surface and sinking of new surface were noticed. KHRI conducted field tests in the presence of KWA, which revealed that lack of compaction of the subgrade was the reason for the damage. Due to the poor execution of work by KWA and consequent poor condition of the road, the bituminous pavement including Water Bound Macadam had to be dismantled up to the required depth.

The Executive Engineer/KSTP/Ponkunnam Division worked out ₹ 8.24 crore and ₹ 1.36 crore as the amounts recoverable from KWA for rate escalation and the cost of new item of works and towards loss of working days respectively. The total amount to be recovered from KWA was ₹ 9.60 crore.

Audit observed that public money spent on road restoration by KWA was wasted due to lack of supervision by PWD. The work should have been executed either directly by KSTP with the deposit amount from KWA or placed under the supervision of PWD.

The PD replied (October 2011) that the observations of audit would be considered by KSTP in future projects.

Non-achieving the objectives of IWT pilot project

The Inland Water Transport (IWT) pilot project aimed at upgradation of three feeder canals to the National Waterways III viz. Alappuzha-Kottayam, Kottayam-Vaikkom and Alappuzha-Changanassery extending over a length of 93 km., for rehabilitation and improvement of the existing water transport system. It was aimed that part of the bulk cargo and passengers using road and rail would be diverted to waterways, which was most economical.

The activities involved in the component were clearing canals, side protection, dredging, construction of new jetties and repairs of existing jetties, construction of landings and terminals, construction of new bridges and foot-bridges, providing navigational aids and Environmental and Social Assessment Management Plan activities*.

The original contract for the implementation of the project was awarded (August 2003) to M/s Bhageeratha Engineering Ltd. for an amount of ₹ 60.90 crore, with the period of completion of 24 months (September 2005). M/s RITES was the Engineer for the work. As the contractor was able to achieve physical progress of only 12.43 per cent by July 2005, the Engineer recommended termination of the work due to non-performance, failure to comply with notices of the Engineer,

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* Environmental and Social Assessment Management Plan has been devised to minimize construction and operations related impacts through tree plantation, oxbow land development, training on environmental enhancement, air quality monitoring, noise level monitoring, water quality monitoring and public consultation.

non-compliance with their obligations under the contract and poor financial status of the contractor. Besides, defective design of the Project Co-ordination Consultant also contributed to the failure. KSTP terminated the contract on 14 November 2005 and an amount of ₹ 12.27 crore was paid to the contractor. At the time of termination of the contract, the contractor had completed only 5.59 per cent of dredging work of 156000m^3 and 2.65 per cent of the total length of 92550 linear metre sheet piles to be provided for shore protection.

Later, the work was rearranged (December 2007). The rearranged work was for the construction of approach roads, foot bridges and re-modelling of some jetties. The contract amount for the balance work was ₹ 6.54 crore and the expenditure incurred was ₹ 4.79 crore. Hence the objectives of the IWT project were not fulfilled despite spending ₹ 17.06 crore.

The PD admitted (October 2011) that the objectives of the IWT project were not fully met due to the failure of the contractor's performance and other factors.

Implementation of Institutional Strengthening Action Plan component

In order to formulate a strategy to develop the PWD's technical and financial capacity to effectively manage the State's core road network and to be responsive to road users' demands, the PWD decided to restructure its internal organization; develop human resource capacity; introduce modernized financial management practices; develop a road maintenance management information system; revise outdated codes and manuals; improve contracting and procurement procedures; introduce environmental and social impact monitoring and strengthen road safety engineering capacities by implementing an Institutional Strengthening Action Plan (ISAP). The ISAP consists of seven components with 41 elements. For the implementation of these elements, 68 actions were provided in the plan.

The seven components of ISAP were regulatory and strategic context, organization and management, road finance and maintenance, project management and financial management, public private partnerships, road safety and IWT development. A review of the components, i.e. (i) effective statutory powers and framework for comprehensive road management; (ii) IT capabilities enhancement and utilisation; and (iii) strengthen routine maintenance management were conducted and the following deficiencies were noticed:

Revision of PWD code and manual

Actions such as land acquisition and resettlement procedures, cost estimating procedures, development and implementation of Environmental and Social Management functions and contract administration procedures were to be implemented by revision of PWD codes and manuals.

It was observed that the revision of codes and manuals were completed but it had not yet approved by the Government. Hence, the same has not yet been implemented by PWD.

The above fact was confirmed by the PD.

Road Maintenance Management System (RMMS)

RMMS was intended to enable the PWD in selecting roads for maintenance by giving utmost priority for most urgent roads. For the purpose, inventory details of pavement, junctions, horizontal curves, vertical alignment, bridge and culverts and data on condition of roads such as pavement condition, condition of shoulder, drainage and footpath, surface roughness, traffic volume, etc. were needed to be collected and fed directly into the system through the web.

It was observed that RMMS was not operational as the data could not be exported for analysis at the required level. Further, the data collection for RMMS was a continuous process and systems were not in place to ensure this.

The PD stated that RMMS is being under updation and data collection is also in progress.

Geographical Information System (GIS) based Road Information and Management System

GIS based Road Information and Management System was intended to prepare a base map for the whole State integrating all types of data like road networks and all other relevant data relating to roads to provide IT capabilities by integrating with RMMS using web enabled data.

It was observed that GIS and RMMS were not integrated and web enabled to receive data directly from the divisions and the sub-divisions.

The PD stated that RMMS was under updation, after which the RMMS would be integrated to GIS.

Thus, even after spending ₹ 59.53 crore on the installation of ISAP including the above elements, PMT did not fully achieve the objectives of modernization of PWD including maintaining and updating data on road networks.

The PD replied that (October 2011), necessary provisions to top-up the activities on ISAP initiatives would be made in KSTP II.

Conclusion

The main deficiency of the project was the inordinate delay in the land acquisition process. The actual cost sharing ratio between IBRD and the Government of Kerala was worked out at 63.59 per cent and 36.41 per cent as against the envisaged 76 per cent by IBRD and 24 per cent by the Government of Kerala. In the case of corridor upgradation works, the original target was reduced by more than 50 per cent when the project was restructured. In the case of RMC works, 1156 km. was completed against the original target of 1009 km. The objective of upgradation of IWT canals was not achieved even after spending ₹ 17.06 crore. Institutional strengthening was not fully achieved. The World Bank rated the Implementation Performance and Development Objective of the project as moderately satisfactory.

Recommendations

- Land survey for acquisition may be conducted in a co-ordinated manner with the Revenue staff. All the pre-construction activities including land acquisition and utility shifting may be completed before awarding of the work.

- The design of works should be made in accordance with the provisions of the Indian Standard Code and Indian Road Congress currently in use, so as to suit the Indian conditions.
- A mechanism for co-ordinating road works of PWD, KSEB, BSNL, KWA and other agencies should be evolved.
- All-out efforts should be made to implement various components of the institutional strengthening Action Plan.

[Audit Paragraph 2.2 contained in the Report of the Comptroller and Auditor General of India for the financial year ended 31 March 2011 (Civil).]

Notes received from Government on the above Audit Paragraph is included as Appendix II.

Regarding the audit paragraph, 'Financial Management', the Secretary, Public Works Department informed that delay in land acquisition was the major problem faced during the first phase of KSTP. Government had directed to initiate the land acquisition procedures only after the commitment of the loan from World Bank. The delay in land acquisition was resulted in cost escalation, arbitration and subsequent litigations. He added that such faults would not be repeated in 2nd phase since 99% of land acquisition had already been completed.

2. Regarding the audit observation that delay in timely decision by KSTP resulted in the extra expenditure of ₹ 60.75 crore, the Committee remarked that in this case lapse occurred on the part of the department in collecting compensation from the contractor who delayed construction works even in the works for which land was acquired and transferred well in advance. But the department had not taken steps to realise the amount from the contractor and it helped the contractor to claim arbitration at ease. In this regard the official from the Accountant General informed that there was overlooking in the allotment of 17 works, which resulted in the extra expenditure. The Secretary, Public Works Department assured to take necessary steps to avoid such lapses in the 2nd phase of KSTP. The Committee accepted the explanation.

3. The Committee observed that though barricading and related works were incidental items and should be fixed as the responsibility of the contractor. But separate payment was made for that while executing KSTP. The Witness, Chief Engineer PWD submitted that unless it was specified as a separate item, the

contractor would have loaded into the estimate. While executing a work in an open road the incidental expenditure to be incurred for barricading, signals etc. could not be anticipated. Moreover by including incidental items as a separate item, it could also be controlled by the Department. Then the Secretary, Public Works Department supplemented that though there was no provision for incidental items in IRC specification, in certain cases it may be included as a separate item. If it was included as a separate item, double loading of expenditure could be avoided. Then the Accountant General interfered to remind that IRC is a standard condition and deviations from the IRC specification is not advisable.

4. The Secretary, Public Works Department apprised that IRC specifications are some guidelines which are not mandatory. Excluding barricading work, all specifications of IRC were met. The Committee suggested that in order to ensure quality of KSTP roads, IRC specification should be followed strictly. It decided to recommend that the Public Works Department should be more cautious in sticking on the IRC specification while executing works except in some unavoidable circumstances.

5. Regarding the audit paragraph, 'injudicious evaluation and award of RMC works' the CE, KSTP deposed that KSTP had tendered 17 RMC works together where M/s Chandragiri became the lowest in RMC 34 and RMC 35. At the same time it was also the lowest responsive bidder for RMC 40(L2) because L1 contractor did not qualify. The best option for Government was to award RMC 34 to L1 and RMC 40 to L2. In cases where the same contractor is lowest in more than one quotes, combined evaluation would be done to ascertain his capacity to finish the work. After the combined evaluation RMC 34 and 40 were awarded to M/s Chandragiri. In the case of RMC 35, the lowest bidder M/s Chandragiri disqualified on combined evaluation and L2 was not qualified. So the work was entrusted with the L3 contractor viz. NAPC. To a query of the Committee, he replied that M/s Chandragiri was blacklisted after those works completed.

6. The official from the Office of the Accountant General informed that if RMC-35 was entrusted with the contractor instead of RMC-34, the infructuous expenditure of ₹ 2.72 crore could have been avoided. In this regard the witness, Chief Engineer, KSTP submitted that it was occurred due to overlook while executing tender evaluation of 17 works together. He continued that if procurement occurred after combined evaluation, the work could be commenced

only with the non-objection certificate from the World Bank. So the department was more cautious in executing such works and the case pointed out by Audit was happened due to overlook. The Committee directed that the department should take necessary measures to avoid such lapses in future.

7. Regarding the audit paragraph, the Chief Engineer, KSTP informed that the contractor had abandoned the work in the middle and he had been terminated at his own risk and cost. But the amount could not be realised since arbitration has been going on. He continued that it was a pilot project under which upgradation of three feeder canals viz., Changanassery-Alappuzha, Alappuzha-Kottayam and Kottayam-Vaikkom was envisaged to undertake. Later the work was limited to the construction of 16 Boat Jetties, Changanassery terminal, two bridges and one foot over bridge. The work was terminated after expending ₹ 16 crore and have covered all works except canal strengthening, which could not be carried out because the canal banks got damaged during excavation. Then the Secretary, Public Works Department admitted that the objection raised by Audit is sustainable and remarked that poor designing was the reason behind the failure of the project. The Committee expressed its displeasure over the lackadaisical attitude of the officials citing that the deepening work of the canal started even without soil testing and suggested that Public Works Department should take necessary steps to avoid such flaws in future.

8. The Chief Engineer, Public Works Department informed the Committee that Government had revised PWD Manual and the department follow CPWD rate. To a query of the Committee, the Chief Engineer, PWD answered that the estimate was being prepared according to the schedule of rate.

9. When enquired about the objections raised by the Accountant General regarding RMMS, the Chief Engineer, Public Works Department apprised that the software for both RMMS and GIS was developed by consultants. But data collection was not included under their purview at that stage and they demonstrated the programme with some primary data. He added that even though road network was fully digitised, system was not developed for integrating GIS and RMMS.

10. The Committee was at a loss to note that even after expending ₹ 60 crore in this regard, the department was not fully benefited out of it. It enquired whether the engineers of the department were not competent enough to develop the manual. The Witness, Chief Engineer, PWD submitted that the expenditure incurred was not solely for the purpose and it could not be considered futile since Road Safety Authority and Road Fund Board are constituted based on this policy. He informed that the expenditure incurred for GIS was ₹ 2.82 crore and for RMMS was ₹ 3.1 crore only. The witness continued that a road safety action plan was developed and implemented with the assistance of the Motor Vehicles, Education and Police Departments. Also the prevalent Revenue Recovery and Land Acquisition policies were developed based on the study made in this regard. The department was provided with computer, fax, printer etc. utilising the fund. Also training imparted to engineers on different aspects like capacity building, quality control and environment management. The Committee remarked that unless RMMS could be implemented, GIS is not required and reiterated the observations of the Audit that the software developed using consultant could not be effectively utilised and directed to take effective measures to make RMMS operational.

Conclusion/Recommendation

11. **The Committee observes that delay in land acquisition ended with increase in cost and led to arbitration and subsequent litigations. So it suggests that an amicable solution for the land acquisition should be derived in co-ordination with the Revenue Department, since it is the major hurdle in implementing almost all developmental projects.**

12. **On noticing that while executing KSTP Phase I, barricading and allied works were earmarked as a separate item against the IRC specifications, the Committee opines that violating the prevailing laws is not justifiable. It recommends that in order to ensure the quality of roads, Public Works**

Department should be more vigilant in sticking on the IRC specifications and unless under unavoidable situation, it should not be violated.

13. **Regarding the audit paragraph, injudicious evaluation and award of RMC works, the Committee reiterates the observation of Audit and remarks that while awarding works the ultimate benefit of project should be taken into account without sticking on merit by considering individual cases. It directs the Public Works Department that necessary measures should be taken to avoid such lapses in future.**

14. **The Committee was at a loss to note that only after incurring an expenditure of ₹ 16 crore, the PWD realised that the Pilot Project of the Inland Water Transport could not be materialised. It blames the department for the poor designing of the project and expresses its displeasure over the lackadaisical attitude of the officials citing that the deepening work of the canal was started even without soil testing. The Committee suggests the Public Works Department that the design work of a project should be entrusted only to a responsible and technically efficient agency and appropriate action should be taken to avoid such unfruitful expenditure of public money in future.**

15. **The Committee remarks that unless RMMS could be implemented, GIS is unnecessary and reiterates the observations of the Audit that the software developed using consultant could not be effectively utilised. The Committee exhorts the Public Works Department and directs to take effective measures to make RMMS operational.**

AUDIT PARAGRAPH

Excess payment due to non-recovery of overhead charges and contractor's profit

Excess payment of ₹ 77.46 lakh was made to contractors due to non-recovery of overhead charges and contractor's profit on the cost of bitumen in seven works

Government issued (September 2003) orders to dispense with the departmental supply of bitumen for works costing more than ₹ 6 lakh, which was modified (February 2004) to ₹ 15 lakh. For such works, the actual cost of bitumen was to be reimbursed to the contractors. As such, the elements of 10 per cent contractor's profit and 10 per cent overhead charges were not admissible while computing the rates of bituminous works.

Audit scrutiny revealed that the Executive Engineers of two Public Works Roads Divisions and two National Highway Divisions had wrongly included the elements of 10 per cent contractor's profit and 10 per cent overhead charges on the cost of bitumen in the estimated rates of seven bituminous works and omitted to recover the same at the time of payment to the contractors, leading to excess payment of ₹ 77.46 lakh as shown below:

TABLE 3.2: DETAILS OF EXCESS AMOUNT PAID

Sl. No.	Name of Division	Name of work	Excess amount paid (₹in lakh)
1	Roads Division, Muvattupuzha	Improvements to Kothamangalam-Pothanicadu-Paingottur-Njarakkad Road 0/00 to 20/250	20.99[*]
2	do.	Improvements to Mannoor-Ponjassery Road	17.35[†]
3	Roads Division, Thrissur	Improvement to Thrissur City Roads	8.69[*]
4	NH Division, Muvattupuzha	IRQP NH 49-274/000 to 286/610	10.56[†]
5	do.	IRQP NH 220-136/700 to 146/975	12.09[†]
6	NH Division, Kodungallur	IRQP-Palarivattom-Kakkanad-Kumarapuram Road	3.63[†]
7	do.	IRQP-Kalamassery-Pathalam-Eloor-Manjummal-Muttom Road and link road from Kalamassery (NH Junction) to Seaport Airport Road	4.15[†]
		Total	77.46

Source: Departmental records.

Thus the inclusion of the elements of overhead charges and contractor's profit in the estimate and the non-recovery of the same at the time of payment to the contractors resulted in irregular excess payment of ₹ 77.46 lakh.

The matter was referred to the Government in July 2011. Their reply had not been received (October 2011).

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* Ten per cent overhead charges.

† Ten per cent overhead charges and 10 per cent contractor's profit.

1085/2014.

[Audit Paragraph 3.1.3 contained in the Report of the Comptroller and Auditor General of India for the financial year ended 31 March 2011 (Civil).]

Notes received from Government on the above Audit Paragraph is included as Appendix II.

16. Regarding the audit paragraph the Chief Engineer, Public Works Department admitted the lapse on their part in sanctioning 10% as contractors profit. But the circular issued regarding the reimbursement of actual cost, provide that contractors profit and tender excess need not be reimbursed and it was not mentioned anything about overhead charges. It was included in the estimate, but later on when pointed out by Audit, overhead charges were excluded from the estimate. The Committee accepted the contention of the department and decided to recommend to exempt contractors from overhead charges. It urged the PWD to take necessary steps to realise the contractors profit in this case and report to the Committee.

Conclusion/Recommendation

17. **Regarding the excess payment due to non-recovery of overhead charges and contractor's profit, the Committee recommends to exempt contractors from paying overhead charges and urges the Public Works Department to take necessary steps to realise the contractors' profit in this case and report it to the Committee.**

AUDIT PARAGRAPH

Payment beyond the scope of contract

Payment of ₹ 59.42 lakh was made to a contractor beyond the scope of the contract

The Superintending Engineer (SE), Roads and Bridges, North Circle, Kozhikode awarded (December 2005) the work of construction of 'the Olassery-Palayangad Road, including a bridge across Chitturpuzha at Palayangad' in Palakkad district to a contractor for a contract amount of ₹ 3.60 crore which was 24.60 per cent over the estimate*. The SE had executed five supplemental agreements with the contractor for carrying out extra items of work valued at ₹ 2.25 crore related to the main work and extension of time was also granted up to 31 March 2008. The contractor completed the work on 28 May 2008 and final payment was made in October 2009. However, the contractor represented (August 2009) to the Minister (Public Works Department) for enhanced of rates for cement and steel. The Minister forwarded the representation (August 2009) to the Chief Engineer (CE) for his recommendations. The CE recommended the proposal (August 2009) to the Government for paying enhanced rates of cement and steel. The Government turned down (September 2009) the proposal on the plea of non-applicability of the stipulations of Government Circular of 10 October 2008 issued by the Finance Department to the above work. In accordance with para 2.5 of the circular, enhancement needed to be paid only for items executed after 1 April 2008 in respect of works for which extension of time of completion had been legally sanctioned and for works for which the time of completion had not expired. In the instant case, the actual purchase of materials was before 1 April 2008. However, the Government directed that payment may be made for the extra items executed by the contractor based on the prevailing Schedule of Rates (SOR)/market rates as per the rules. According to the original agreement, the payment for the extra items had to be made as per the original Schedule of Rates (2004 SOR) at which the work was tendered plus the tender excess (24.6 per cent). The contractor's bill was finally settled (as per 2004 SOR plus tender excess percentage) on the basis of the original agreement. As such, the contractor was not eligible for any further payment as per the direction of the Government. However, the Executive Engineer (EE), Roads Division, Palakkad paid ₹ 59.42 lakh in January 2010 to the contractor

* Based on 2004 Schedule of Rates.

towards the difference in cost between the SOR of 2004 and the SOR of 2007 for works executed as extra items.

When this irregular payment was pointed out (February 2011) by Audit, the Government issued (March 2011) orders regularising the excess expenditure on the ground that there was considerable delay in completion of the work due to the delay in providing hindrance free land. The contention of the Government was not correct. The contractor had already been given benefit by way of supplemental agreements worth ₹ 2.25 crore as against the initial agreed value of ₹ 3.60 crore. The extra payment was in violation of contractual provisions.

The matter was referred to the Government in June 2011. Their reply had not been received (October 2011).

[Audit Paragraph 3.2.4 contained in the Report of the Comptroller and Auditor General of India for the financial year ended 31 March 2011 (Civil).]

Notes received from Government on the above Audit Paragraph is included as Appendix II.

18. To the query of the Committee, the Chief Engineer, Public Works Department deposed that after the completion of the work the contractor claimed for the difference in cost of materials. A circular issued in this regard instructing that the difference in cost could be granted to the contractor for the works executed after 1-4-2008. But in this case materials were purchased before the circular came into force. So at first Government had rejected his claim and instead of difference in cost, the amount was sanctioned as per the schedule of cost. He added that the claim was for an extra item and the case was regularised as per the suggestion of the Audit. The Committee accepted that contention of the Department.

Conclusion/Recommendation

No Comments.

DR. T. M. THOMAS ISAAC,
Chairman,
Public Accounts Committee.

Thiruvananthapuram,
9th July, 2014.

APPENDIX I

SUMMARY OF MAIN CONCLUSION/RECOMMENDATION

Sl. No.	Para No.	Department concerned	Conclusion/Recommendation
1	2	3	4
1	11	Public Works, Revenue	The Committee observes that delay in land acquisition ended with increase in cost and led to arbitration and subsequent litigations. So it suggests that an amicable solution for the land acquisition should be derived in co-ordination with the Revenue Department since it is the major hurdle in implementing almost all developmental projects.
2	12	Public Works	On noticing that while executing KSTP Phase I, barricading and allied works were earmarked as a separate item against the IRC specifications, the Committee opines that violating the prevailing laws is not justifiable. It recommends that in order to ensure the quality of roads, Public

			Works Department should be more vigilant in sticking on the IRC specifications and unless under unavoidable situation, it should not be violated.
3	13	,,	Regarding the audit paragraph, injudicious evaluation and award of RMC works, the Committee reiterates the observation of Audit and remarks that while awarding works the ultimate benefit of project should be taken into account without sticking on merit by considering individual cases. It directs the Public Works Department that necessary measures should be taken to avoid such lapses in future.
1	2	3	4
4	14	Public Works	The Committee was at a loss to note that only after incurring an expenditure of ₹ 16 crore, the PWD realised that the Inland Water Transport Pilot Project could not be materialised. It blames the department for the poor designing of the project and expresses its displeasure over the lackadaisical attitude of the officials citing that the deepening work of the canal was started even without soil testing. The Committee suggests the Public Works Department that the design work of a project should be entrusted only to a responsible and technically efficient agency and appropriate action should be taken to avoid such unfruitful expenditure of public money in future.
5	15	,,	The Committee remarks that unless RMMS could be implemented, GIS is unnecessary and reiterates the observations of the Audit that the software developed using consultant could not be effectively utilised. The Committee exhorts the

			Public Works Department and directs to take effective measures to make RMMS operational.
6	17	,,	Regarding the excess payment due to non-recovery of overhead charges and contractor's profit, the Committee recommends to exempt contractors from paying overhead charges and urges the Public Works Department to take necessary steps to realise the contractors' profit in this case and report it to the Committee.

APPENDIX II

NOTES FURNISHED BY GOVERNMENT