TWELFTH KERALA LEGISLATIVE ASSEMBLY

COMMITTEE
ON
PUBLIC ACCOUNTS
(2008-2011)

EIGHTY SEVENTH REPORT

(Presented on 29th June, 2009)

SECRETARIAT OF THE KERALA LEGISLATURE
THIRUVANANTHAPURAM
2009

TWELFTH KERALA LEGISLATIVE ASSEMBLY

COMMITTEE
ON
PUBLIC ACCOUNTS
(2008-2011)

EIGHTY SEVENTH REPORT

On

Paragraphs relating to Public Works Department contained in the Reports of the Comptroller and Auditor General of India for the year(s) ended 31 March 2003 (Civil) and 31 March 2005 (Civil)

566/2009.

CONTENTS

			Page
Composition of the Committee		..	v
Introduction		..	vii
Report		..	1
Appendices :			
I	Summary of main Conclusions/Recommendations	..	24
II	Notes furnished by the Government	..	31

COMMITTEE ON PUBLIC ACCOUNTS (2008-2011)

Chairman :

Shri Aryadan Muhammed

Members :

Shri C. T. Ahammed Ali
„ Anathalavattom Anandan
„ Babu Paul
„ K. C. Joseph
„ K. M. Mani
„ A. C. Moideen
„ M. Prakashan Master
„ Ramachandran Kadannappally
Smt. K. K. Shylaja Teacher
Shri M. V. Sreyams Kumar

Legislature Secretariat :

Shri. P. D. Rajan, Secretary
Smt. V. Jayalekshmi Amma, Additional Secretary
Shri Wilson V. John, Deputy Secretary
Smt. A. Achamma, Under Secretary

INTRODUCTION

I, the Chairman, Committee on Public Accounts, having been authorised by the Committee to present this Report on their behalf, present the Eighty Seventh Report on paragraphs relating to Public Works Department contained in the Reports of the Comptroller and Auditor General of India for the years ended 31 March 2003 (Civil) and 31 March 2005 (Civil).

The Reports of the Comptroller and Auditor General of India for the years ended 31 March 2003 (Civil) and 31 March 2005 (Civil) were laid on the Table of the House on 28 June, 2004 and 16 February, 2006 respectively.

The Committee considered and finalised this Report at the meeting held on 10 June, 2009.

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

ARYADAN MUHAMMED,
Chairman,
Committee on Public Accounts.

Thiruvananthapuram,
29th June, 2009.

REPORT

PUBLIC WORKS DEPARTMENT

Audit Paragraph

Extra liability due to inordinate delay in completing a work

Delay in construction of a bridge led to upward revision of rates of contract resulting in extra liability of Rs. 2.90 crore.

In October 1992, Superintending Engineer, National Highway (South Circle) awarded the work 'Construction of a bridge between Aroor and Arookutty in Alappuzha District' to a contractor at 33.9 per cent above estimate of Rs. 5.02 crore (based on 1992 SoR*) with stipulation to complete the work within 24 months from the date of issue of work order. The work order was issued only in April 1993 since some alterations had to be made in the nature of the pile foundation to suit the existing soil profile. The work was completed in February 2002. Audit scrutiny of the records of the work revealed the following.

Even though the first pile was cast in August 1993, the work could be completed only in February 2002 as (i) the work of shifting ferry landing boat jetty in the alignment of the proposed site estimated to cost Rs. 1.47 lakh could be completed only by August 1998 and (ii) agitation by local fishermen, against construction of earthen bunds instead of island bunds could be settled by June 1999. In May 1999, the contractor demanded (i) 70 per cent premium over 1996 SoR for works executed between April 1997 and March 1999 and (ii) 110 percent premium over 1996 SoR for works executed from April 1999 onwards. The Arbitration Committee to whom the contractor's request was referred recommended (May 2000) payment at 33.91 per cent over 1996 SoR for works done between April 1997 and April 2001 and payment at 1999 SoR for works done thereafter. Government accepted the recommendation in June 2001. Accordingly, the Chief Engineer (CE), National Highways revised (October 2002) the estimate to Rs. 12.61 crore.

Before the Arbitration Committee, the CE contended that the Department had extended all facilities for timely completion of work. The contention of the CE was not correct as (i) the Department initiated action for shifting the jetty only in February 1997 ie., after a lapse of 47 months from the date of issue of work order (April 1993) and after the proposed time of completion (April 1995), (ii) the Department could complete construction of island bunds in June 1999 though the fishermen agitated against the bund formation in January 1998 and the Honourable High Court ordered in Department's favour in March 1998 itself.

* Scheduled of Rates

Thus, departmental delay in shifting the ferry landing jetty cost of which was estimated at a meagre amount of Rs. 1.47 lakh only and in clearing fishermen's obstruction led to delayed completion of the bridge and contractor's demand for revision of rate resulting in extra financial liability of Rs. 2.90 crore.

The matter was referred to Government in October 2002; reply has not been received (December 2003).

[Paragraph 4.4.3 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2003 (Civil).]

Government notes on the above audit paragraph are included as Appendix II of this report.

1. The Committee noted that in the case of construction of a bridge between Aroor and Arookutty in Aleppey District in October 1992 with stipulation to complete the work within 24 months it was completed only after the lapse of nearly 10 years and the department yielded to the request of the contractor for an increase of 33.9% above estimate rate. The argument of the contractor for hike in the estimate rate was that, the department hadn't made available the land required for the execution of the work at the proper time. To a query of the Committee about the reason for the delay in starting the work, the Chief Engineer, National Highways (Administration) replied that the delay in shifting the electric post in the site hindered the commencement of the work. But the Committee noted that even though the work order was issued in April 1993, the application for shifting the electric post was submitted only in 1996, which was a clear dereliction of duty on the part of the department. To this finding of the Committee, the department witness had no proper answer. The Committee again pointed out that the reason for the increase in the estimated cost as given in reply of the Government that, it was the Arbitration Committee which allowed a hike in the contract amount, based on the application of the contractor, would not stand, since Arbitration was stopped in the 1980's itself, in the works of KIP. This incident arose in 1996, long after the stoppage of Arbitration. The Committee was adamant that there are specific Government Orders stating very clearly to stop arbitration in future works after 1986. Therefore, the Committee directed the witness to inform the Committee of the latest status regarding arbitration clause in PWD works and also to see whether any arbitration clause was invoked in the above work. The Committee also observed that there was delay and laxity on the part of Kerala State Electricity Board also in shifting the electric post in time, which was highly deplorable. The witness kept silent to the queries regarding the department's failure to include the provisions for the construction of road under the Bridge, culvert and

cement concrete drains, in the original contract. Those works were added to the original work subsequently by the department. Even though the work order was given for pile foundation, it was changed to well foundation subsequently. When asked about the authority for such a change, the witness had no answer. The witness also kept mum on a question regarding the reason for the delay of 47 months for transferring the boat jetty to another place. To the repeated questions of the Committee regarding the increase in the estimate for shifting the Jetty and the reasons for the delay in shifting it, the Chief Engineer (Roads & Bridges) answered that there was objection from the Fisherman folk in its shifting. But he could not furnish the details of it.

Conclusion/Recommendation

2. **The Committee observes that the construction work of the bridge between Aroor and Arookutty in Alappuzha District proved to be a classic example of the inefficiency and lethargic attitude of the PWD, as the works started in October 1992 was completed only by February 2002 after an inexcusable lapse of 9 years. The Committee also views with great concern the fact that the estimate as per 1992 SoR (Scheduled of Rates) soared up from Rs. 5.02 crore to Rs. 12.61 crore as per October 2002 SoR. The Committee is not at all satisfied with the department's explanation that they were forced to allow 33.9% hike in the estimate since the required land for the implementation of the project was not handed over to the contractor at the proper time. The Committee also views with suspicion the department official's reply that the delay in shifting the electric post in the site hindered the commencement of the work. But the Committee notes with dismay that even though the work order was issued in April 1993, the application for shifting the electric post was submitted only in the year 1996. It is opined that besides the PWD, the KSEB also showed unforgivable indifference in this matter since the Board completed the shifting of the electric post only by the year 2002 though the application for the same was submitted in the year 1996. The Committee does not understand the Government reply that the increase in estimate cost was allowed by the Arbitration Committee, as there is a Government order (1986), which clearly states that Arbitration clause should not be included in any PWD works. The Committee in this connection is dissatisfied with the action of the department in not complying with the direction of the Committee to submit the details regarding the position of Arbitration clause in current PWD works and its implementation in the above specific work. The Committee deplores the silly excuses tendered by the department that the delay in beginning the construction work was due to reasons like delay in the shifting of ferry landing jetty in the alignment of the site, protest of fishermen against the construction of earthen bunds instead of island bunds etc. In reality, it resulted in the lapse**

of a period of almost 7 years and loss of Rs. 2.90 crore. The Committee regrets to note that the officials who represented the department for witness examination did not have even common knowledge about the details of the above work and reminds that such ignorance will not be tolerated in future.

AUDIT PARAGRAPH

Extra expenditure in the formation of a village road

Post contractual change of gradient of a village road resulted in extra expenditure of Rs. 86.04 lakh.

Government sanctioned (March 1998) formation and improvements of Mundengara Pullipadam Odayikkal road (a village road) in Malappuram District for Rs. 1.95 crore. The Chief Engineer, Roads and Bridges sanctioned (April 2001) the work technically for Rs. 2.80 crore. The Executive Engineer, Roads Division, Manjeri, whose records were test checked during April-May 2004, awarded (May 2001) formation, side protection, cross-drainage and metalling and black topping components (excluding supply of cement and steel) for execution on piece rate basis* at 30 per cent above estimated rate for an agreed cost of Rs. 3.06 crore. Execution of these components was completed by June 2003. Payment of Rs. 3.48 crore was made as of January 2004.

Formation component of the estimate provided for 28,665 cubic metre (cum) of earth filling with contractor's own material. Against this, the quantity actually executed and paid for was 1,00,528 cum. Out of this excess quantity of 71,863 cum, 41,607 cum filling was necessitated due to reduction in cutting quantity (21,840 cum) and extra filling for a 5.370 km portion of road lying at a lower level (19,767 cum). There was, however, no reasonable justification for the remaining quantity of 30,256 cum. Further, as a consequence of this extra filling, the side protection component involving random rubble masonry in cement mortar for retaining wall was executed for an extra quantity of 5,775 cum. Department's contention was that the increase in filling quantity was to ease the gradient to the 'major district road standard'. However, this does not hold good as it was contrary to the Government sanction for forming and improving the village road to trafficable gradient. The fact that a portion of the road to be formed passed through low lying land and required additional filling to ease the gradient was very well known to the Department and as such, it ought not to have escaped notice at the time of preparing the original estimate. Thus the post contractual changes made in the scope of work, against the intention of the Government, led to extra filling (30,256 cum) and masonry work (5,775 cum), resulting in extra expenditure of Rs. 86.04 lakh.

* In piece rate system of contract, the contractors give in writing and undertaking to carry out an item of work at specified rates without reference to quantities or time and are usually confined to small works.

Government was requested (October 2004) to take remedial steps to arrest the unhealthy tendency of resorting to unjustifiable post-contractual change in estimates.

The matter was again referred to the Government in July 2005; reply had not been received (September 2005)

[Paragraph 4.3.4 contained in the Report of the Comptroller and Auditor General of India for the year ended 31 March 2005 (Civil).]

Government note on the above audit paragraph is included as Appendix II of this report.

3. The Committee came to know that the construction of Mundengara—Pullipadam—Odayikkal Village Road in Malappuram District was completed after giving an estimate hike of 30% above actual and hence the amount given to the contractor was Rs. 3.06 crore. Even though initial estimate was only Rs. 1.95 crore, on completion of the work the total amount incurred for the work was Rs. 3.48 crore. The Committee ridiculed the department over the fact that a village road, on completion, consumed an amount equivalent to the construction of a Major District Road. The Chief Engineer, Roads & Bridges deposed that such an increase in the cost of the work was due to the additional filling of earth in the curved alignment of the road. The low lying portion of the road also had to be raised above the water level of Chaliyar river to prevent over flow. Not accepting this reply, the Committee disclosed that the Maximum Flood Level in that area was clearly marked in 1961 itself and that flood was a common phenomenon in that area, of which every one was aware. The Committee pointed out that the department during the time of investigation should have looked into such aspects well before tendering the work. The Committee was of the opinion that the department's investigation could not be relied on, since the departmental investigation team included officials who had history of fraud and malpractice. Hence, the Committee suggested that the investigation work of departmental works should be entrusted with quality-based institutions like Lal Bahadur Sastri Institute or Government Engineering Colleges.

4. The Government's reply stated that the expenditure for the excess quantity of filling and protection was met from the savings amount of other items of work. When the Committee enquired as to how that could be met from the savings amount, the witness had no idea on the matter. It was pointed out in Audit that an additional earth filling of 30256 cubic metre done by the department, was not mentioned either in the tender or estimate. When enquired about the reason for such a change in the work, the Chief Engineer replied that, in order to maintain the slope along downstream there was absolute need for raising the longitudinal slope also for which additional earth filling was done.

Moreover the rock in that area had a peculiar alignment along it, which prevented blasting. Rubber trees were also planted in that area and the local people obstructed blasting of the rock there. Initially the width of the curve was 8 metres, which was extended to 10 metres after earth filling.

5. The Committee observed that the PWD either purposefully turned a blind eye towards all these factors which were digestable even to common man or showed a lackadaisical attitude to such important matters which could not be taken for granted.

Conclusion/Recommendation

6. **The Committee observes that a village road in Malappuram District sanctioned at an estimated cost of Rs. 1.95 crore was completed at a cost of Rs. 3.48 crore which is an unjustifiable hike and is equivalent to the cost of construction of a Major District Road. This happened mainly due to lack of foresightedness on the part of the officials and inexcusable lapse shown in the investigation work of the project. The Committee ridicules the Department officials' petty explanations like additional filling done in the curved alignment, raising the road level above the Chaliyar river by extra earth filling etc, and opines that such basic factors should have been taken into consideration well before the commencement of the project. The Committee thinks that it is not eventual but purposeful. Since the Committee is fully aware of the fact that the investigation wing of the PWD is a haven of manipulators, it is suggested that in future, investigation works of any project undertaken by PWD should be entrusted with quality based institutions like Lal Bahadur Shastri Institute or Government Engineering Colleges. The Committee views with serious concern the lackadaisical attitude of the PWD officials which resulted in undue extra expenditure of crores of rupees from the public exchequer.**

AUDIT PARAGRAPH

Extra liability due to change in design

Failure of the Department in ensuring suitability of design to the site conditions and frequent changes in the design led to delay in completion of the work and consequential extra liability of Rs. 39.68 lakh

The Superintending Engineer (SE), Roads and Bridges, South Circle, Thiruvananthapuram awarded (March 1999) the work of construction of a bridge at Bunglowkadavu across Pamba River on Ozhuvampara-Vadasserikara road in Pathanamthitta district to a contractor at a contract price of Rs. 2.55 crore. The site was handed over in April 1999, and the date of completion was March

2001, which was extended up to March 2004. The construction was completed in September 2004. Payment made to the contractor was Rs. 2.33 crore as of December 2004.

Estimate for the work was prepared on the basis of drawing approved (May 1994) by the Design Research Investigation and Quality Control (DRIQ) Board according to which the piers and one abutment of the bridge were to have open foundation, whereas the second abutment was to have well foundation. It was noticed (December 2003) in audit that the change in design effected (June 1994) by the DRIQ Board altering the well foundation of the second abutment to open foundation was not considered while tendering and arranging the work. After commencement of the work, the design was changed to open foundation for the second abutment also due to necessity at site. Again, as it was found to be difficult to adopt open foundation for the four piers in the river portion it was also changed to twin well of 4.00 M dia and the Chief Engineer, Roads and Bridges, Thiruvananthapuram approved the change in May 2000. The design changes were communicated to the contractor in July 2000.

Meanwhile, alleging loss due to the delay in finalisation of design and specifications for the foundation of the bridge, the contractor demanded (September 2000) payment at 1999 schedule of rates with his quoted rate of 44.5 per cent above estimate for work done from July 2000. The arbitration committee, which examined the matter, observed (April 2001) that there was time overrun of 13 months due to departmental lapses and recommended payment at 30 per cent above estimate as per 1999 schedule of rates for works executed after 23 March 2001, being the date originally fixed for completion of the work. Government accepted the recommendation in October 2001 which resulted in extra liability of Rs. 39.68 lakh.

Thus, due to the failure of the department in ensuring that the design adopted for preparation of estimate was suitable to the site conditions, the department had to change the design frequently and it took 13 months to finalise the design thus delaying the completion of the work entailing extra liability of Rs. 39.68 lakh.

The matter was referred to the Government in July 2005; reply had not been received (September 2005).

[Paragraph 4.3.5 contained in the Report of the Comptroller and Auditor General of India for the year ended 31 March 2005 (Civil)]

Government note on the above audit paragraph is included as Appendix II of this Report.

7. The Committee understood that the Superintending Engineer, South Circle, Thiruvananthapuram, awarded the work of construction of a bridge at Bunglowkadavu across Pamba river in Pathanamthitta District to a contractor at a price of Rs. 2.55 crore. The estimate of the work was prepared on the basis of drawings approved by the Design Research Investigation and Quality Control Board, according to which the piers and one abutment of the bridge were to have open foundation, whereas the second abutment have well foundation. It was noticed in audit that the design approved by the DRIQ Board was not considered while tendering and arranging the work. When asked about the reason for the change in the design when the work was arranged, the Chief Engineer (Roads and Bridges) replied that it happened due to oversight. The Committee was astonished to hear such an answer from a Chief Engineer. The Committee wanted to have a clear answer regarding the officers responsible for the change in design approved by the DRIQ Board. The Committee also directed to report the reason if any in the department records for the change in the design at the final stage, before and after tendering the work.

8. The Committee also noted that the department took 13 months for effecting change in the design. This in turn led to the increase in estimated rate of the work. When asked about the reason for this delay, the Chief Engineer (Roads & Bridges) answered that there were four pier points in the river, and the original design envisaged open foundation for all the four piers. Construction of a pier close to the shore revealed that it was difficult to maintain water tightness because of the heavy flow of water from Maniyar Power House on the upper side. This forced the department to change open foundation to well foundation. The Committee opined that since Maniyar Power House and the related project were there since long back the department ought to have considered the aspect such as the water flow, at the time of investigation and preparation of the estimate. The Committee directed the department to furnish the details such as the date of tender of the work, the persons responsible for the change in the design, the date on which the decision to change the design was taken, whether DRIQ Board took decision to change the design and if so, the reasons for it, did the Board conduct any investigation in this regard etc. The Secretary, Public Works Department agreed to furnish the required details.

Conclusion/Recommendation

9. **The Committee severely criticise the inefficient approach of the Public Works Department towards projects which are designed for public utility. The construction of the bridge across river Pampa in Ozhuvampara-Vadasserikkara road in Pathanamthitta District which caused extra liability of Rs. 39.68 lakh to the Government and a lapse of over an year is also not**

an exception. The Committee lament the childish reason attributed by the department officials that the change in design approved by DRIQ (Design Research Investigation and Quality Control Board) was not incorporated due to oversight. The Committee regrets to note that though they directed to furnish certain details on the change in the design of the project such as the date of change in the design from well foundation to open foundation, whether Design Research Investigation and Quality Control Board conducted investigation before changing the design and if so, the reason for the change, the date of tendering of the work etc., the desired details are yet to be submitted to the Committee. The Committee views such kind of irreverence very seriously and suggests to furnish the above details without any delay.

Audit Paragraph

Kerala State Transport Project

Introduction

Government of Kerala launched (June 2002) the 'Kerala State Transport Project' (Project) as a policy for comprehensive development of State Highways and Waterways. The Project was financially aided by the World Bank, in the form of loan, to the extent of 76 per cent of the Project cost. The Project envisaged (a) upgradation of State Highways for a length of 600 km in two phases; (b) larger works of maintenance of Highways for a length of 1,000 km in three phases; and (c) improvement of navigable waterway for 100 km. Apart from this, road safety and institutional strengthening of State Public Works and Water Resources Departments were also included as components of the Project. Implementation of the project, taken up in June 2002, was in progress under the supervision of a Project Management Team (PMT), headed by the Secretary to Government, Public Works Department. Two Circle Level Offices* and four Divisional Offices** also functioned to oversee the Project activities.

Mention was made in the Reports of the Comptroller and Auditor General of India (Civil) [Paragraph 4.1.6 (iii) for the year ended 31 March 2002 and in Paragraphs 4.3.3 and 4.4.6 for the year ended 31 March 2004] about irregularities in the implementation of the Project. A further test check conducted during

* Kottarakkara, Muvattupuzha

** Kanjirappally, Kuttipuram, Kannur, Kottayam.

August 2004 to December 2004 of the records pertaining to the period 1 April 2002 to 30 November 2004 relating to the implementation of the Project revealed the following.

Lapses/Defects in the contracts

Provision for payment of cost escalation and consequent loss

The guidelines formulated by the World Bank for procuring loans and credits by the Government agencies enjoined, among other matters, that price adjustment clause was not necessary in contracts having currency up to 18 months. Disregarding these guidelines, the PMT included provision for price adjustment in 13 contract packages finalised (between March and July 2002) for maintenance of roads under Phase—I, the contractual period of which were between 12 and 15 months. The extent of payment made to contract agencies towards cost escalation in respect of these contracts was Rs. 2.74 crore. The PMT, while concurring with the audit point that price adjustment clause need not have been included in these contracts, held that only bitumen and petrol, oil and lubricant were brought within the purview of price adjustment with the intention of obtaining attractive and competitive offers. This argument is hypothetical and therefore, not maintainable. Inclusion of provision for price adjustment clause in contravention of the World Bank guidelines in these contracts led to avoidable expenditure of Rs. 2.74 crore.

Engaging of consultants

Avoidable expenditure due to awarding contract at higher rate

The project also provided engaging the services of a consultant with sufficient experience to assist implementation of the component Institutional Strengthening and Action Plan*. For this purpose, the PMT invited bids in May 2002. Out of the 29 firms which responded (May 2002), six firms were short listed (June 2002) applying the yardsticks prescribed by the World Bank. The Chief Executive, (PMT), the Chief Engineer (Roads and Bridges) and the Superintending Engineer (Project) conducted technical evaluation of bids individually. According to the guidelines laid down by the lending agency, the

---

* Improving the capabilities of Public Works and Water Resources Departments in infrastructure development, transport maintenance and management.

final ranking should be on the basis of the total of 75 per cent of score obtained on technical evaluation and 25 per cent of score awarded on financial evaluation. The final score position of the three front runner firms was as shown below and the PMT awarded the contract to the firm SMEC International (Australia).

Name of firm	*Financial price offered*	*Score awarded*		*Total score 75 per cent of (iv) plus 25 per cent of (iii)*	*Rank*
		Financial	*Technical*		
(Rupees)	*(Rupees)*	*(points)*	*(points)*	*(points)*	
(i)	(ii)	(iii)	(iv)	(v)	(vi)
SMEC International, Australia (A)	8,67,86,644	59.33	94.17	85.46	I
SPAN-DRD JV, India (B)	5,14,91,530	100	77.99	83.49	II
Scott Wilson Kirk Patrick, UK (C)	9,27,63,064	55.51	75.60	70.58	III

Thus, despite having scored 100 points on financial evaluation, Firm 'B' could not come out successful in the final run, as it missed 1.97 points on final evaluation. Analysis of records relating to evaluation of bids confirmed that the evaluators were not objective in determining the acceptability of various parameters and that they did not pay due weightage to the actual requirements of local conditions for the institutional strengthening of the departments. While certifying the academic qualifications of the key personnel projected by Firm B as 'good', they were judged as possessing lesser international experience, which, in as much as the demands of State departments are concerned, may not necessarily be a fair criterion for technical evaluation. The selection of 'A' which enjoyed only a thin lead of 1.97 points in the final ranking, however, left a monetary burden of Rs. 3.53 crore on the project cost. As Firm B was short listed only after ensuring that technical parameters contained in their offer were within the benchmark fixed, the noticeable mismatch between the financial offers of 'A' and 'B' ought to have been taken up with the lending agency before identifying the successful bidder. Commensurate benefit from increased outgo was not discernable as basis of award of points on technical parameter did not consider objective criterion relevant to conditions of work and were not devolved on granular level. As all the bidders were found to be technically acceptable, KSTP could not derive benefit commensurate to the extra liability of Rs. 3.53 crore.

Avoidable expenditure due to premature conclusion of contract

The Project Plan envisaged employment of the services of a consultant to supervise works relating to upgradation of State Highways. In December 2003, the PMT awarded the consultancy contract relating to upgradation works under Phase II to an international firm for a contract price of Rs. 15.75 crore. The contractual period of the consultancy contract was 36 months. The contractual responsibilities of the consultant firm were (a) to achieve high quality in construction; (b) to ensure that works were carried out in full compliance with the engineering design/technical specification; and (c) to ensure timely completion of works. These contractual obligations would indicate that the activities of the consultant were to go hand-in-hand with the upgradation works. The contract for upgradation had not, however, been awarded as of December 2004. Even before finalising the contracts for upgradation works under Phase II, the consultancy contract was awarded and they were paid an aggregate amount of Rs. 2.32 crore between May and November 2004 towards reimbursement of remuneration paid to key personnel and expenditure on other purposes. Thus, due to non-synchronisation of finalisation of contracts for upgradation works and for consultancy services, payment of Rs. 2.32 crore made to the consultant did not serve any intended purpose. The PMT clarified (September 2004) that services of the firm were utilised for certain critical pre-contract activities, such as project preparations, review of project documentation and design, assisting in preparation of bid documents, etc. The Project, however, did not contemplate employment of consultant for these pre-contract programmes and the services stated to have been rendered by the consultant firm were outside the ambit of contractual responsibilities specified in the agreement. Due to advance positioning of the consultants even before awarding the contract of construction, the possibility of extension of time beyond the stipulated 36 months for the consultants exists, which would lead to extra payment to them.

Extra financial commitment on account of extension of contractual period

The PMT concluded two contracts (May 2002 and June 2002) for the ‘construction supervision consultancy and technical audit’ of works under the Road Maintenance Component of the Project. The aggregate contract outlay was Rs. 1.80 crore and the construction supervision was for one year from the date of execution of agreement. The road maintenance works, arranged under different contract packages were scheduled for completion between April and July 2003. The civil contractors, did not, however, complete the works within the period specified in the agreements. The Steering Committee monitoring the project implementation, therefore, resolved (February 2004) to extend the period of contracts for construction supervision consultancy and technical audit till December 2003 in one case and till February 2004 in the other case. According to the Steering Committee, the civil contractors failed to complete the maintenance works for a variety of reasons, such as, heavy monsoon, substitution of items of work with new ones, lacklustre performance of contractors, etc. Audit scrutiny further showed that one of the contractor firms for construction supervision consultancy appointed its 'Team Leader' only after four months from the date of awarding the contract, whereas, in the second contract the 'Team Leader' appointed by the contractor firm was found to be not capable of delivering the goods.

The obligations of contractors for construction supervision consultancy envisaged in respective contracts were, among other things, (i) ensuring timely commencement of civil works; (ii) monitoring financial and physical progress of works; and (iii) ensuring timely completion of works without diluting quality standards. Failure of contract agencies to fulfill these requirements led to delay in completion of the work resulting in extra financial commitment of Rs. 26 lakh to the Government.

Arrangement of works

Appropriation of borrowed funds for the improvement of National Highways

The State Government launched the Project with the overall objective of comprehensive improvement of the State Highways. In November 2002, the PMT entered into a contract with a firm for the upgradation of the State Highways for a total length of 127.192 km for a contracted price of Rs 215.50 crore. Scrutiny revealed that a portion of the road proposed to be upgraded under the contract (length 44.43 km*) had been notified as National Highway by the Government of India in October 2000 and that the State Government had transferred the ownership of road to the Government of India in December 2002. As the upkeep and maintenance of the National Highways are the responsibilities of the Government of India, the State Government should not have awarded the work to the contractor and the appropriation of Rs. 75.28 crore (approximately) from borrowed funds constituted an injudicious charge on the Project.

* Chainage km 72.400 to Chainage km 116.830-Portion from Kottarakkara to Chengannur

Exorbitant rate for an item of work

The PMT arranged the upgradation of the State Highways for a length of 78.380 km* in November 2002, through a firm for a contract price of Rs. 140.50 crore. As there was no provision in the contract for filling pot holes and for patch works to the existing road surface, these works were arranged as supplementary/varied items. According to the 'variation order' the rate approved for filling pot holes and patching of existing surface (quantity 66,450 sq.metre) was Rs. 301 per sq.metre. Scrutiny revealed that, in the case of three other road maintenance contracts, the rate admitted for doing these works was between Rs. 180 and Rs. 203 per sq.metre. Assuming the rate admissible as Rs. 203 per sq.metre, the excess allowed on this varied item resulted in extra commitment of Rs. 65 lakh.

Mobilisation advance

Undue advantage to contractors due to postponement of recovery of advance

Conditions of contracts relating to up gradation of the State Highways guaranteed payment of interest free advance to contract agencies subject to a maximum amount equivalent to 15 per cent of contract price. Conditions also stipulated that recovery of mobilisation advance should commence after certification of 30 per cent of contract price or nine months after payment of first instalment of advance, whichever period concludes earlier. The contracts in question did not, however, provide for recovery of interest on belated adjustment of advances. Between December 2002 and May 2003, the PMT paid an aggregate amount of Rs. 40.61 crore as mobilisation advance to three contractor firms to which contracts for upgradation of the State Highways for a length of 254.74 km had been awarded in November 2002. The PMT concluded the contract agreement before ensuring availability of encumbrance free land and removing the utilities from the alignment of the road. There was also delay in obtaining clearance from respective authorities for quarries and installation of equipment required for the work. As a consequence of these, the contract agencies failed to achieve prescribed milestones in execution, resulting in non-recovery of mobilisation advance at appropriate time. Therefore, on the basis of the recommendations of the PMT, the Steering Committee, monitoring the Project implementation resolved (February 2004) to amend the contract condition, making it obligatory to commence recovery of mobilisation advance only after completion of 30 per cent of the work.

---

* Palakkad-Shoranur (km 0/000 to km 45+300) and Thrissur-Kuttipuram (km 19+600-km 52+680)

This decision evidently, helped the contractors to retain the amount without paying interest for a very long duration. Thus, the recovery of mobilisation advance of Rs. 40.61 crore, due to commence on various dates between September and December 2003, was pending as of August 2004. Assuming the interest rate as 10 per cent per annum, the contractors' derived unintended benefit to the tune of Rs 3.33 crore by way of interest on funds not repaid to the Government.

The PMT maintained (September 2004) that postponement of recovery of mobilisation advance was done in the best interests of the Project and that it will explore the possibilities of imposing interest, in future, on advances not recovered within the specified time frame.

Liquidated damages

Non-recovery of liquidated damages

Provisions made in 13 contract packages arranged for road maintenance demanded levy of liquidated damages at specified rates in case of failure of contract agencies to complete the works on dates specified in the agreements. On account of the delay in completing the works in time the liability fixed on eleven contractors towards liquidated damages was Rs.5.93 crore. The amount recovered from these contractors as of August 2005 was only Rs.1.17 crore leaving Rs. 4.75 crore still to be recovered.

These points were referred to the Government in July 2005; reply had not been received (September 2005).

[Paragraph 4.2.1 contained in the Report of the Comptroller and Auditor General of India for the year ended 31 March 2005 (Civil).]

Government notes on the above audit paragraph are included as Appendix II of this report.

10. Before going into the details of this audit paragraph the Committee asked the officers about the total project cost of the Kerala State Transport Project, the total amount received from the World Bank by that time for this project and the expenditure incurred etc. The Director, Kerala State Transport Project replied that they had spent Rs.917 crore till then out of which Rs.661 crore was from the World Bank. The Committee was of the opinion that an Agreement should have been executed between the department and the contractor to the effect that the project would be completed within stipulated time. The Committee also directed to furnish the details of the progress of works under different places of the project preferably the kilometers of roads

fully completed, roads nearing completion, balance of kilometers to be completed, etc. within a week's time to the Committee and the Project Director, Kerala State Transport Project assured to do so. Pointing out on the example of Kallada Irrigation Project which extended over decades and crores of rupees were spent more than estimated, the Committee warned that Kerala State Transport Project could not be allowed to go in that way. They also desired to know the time needed for the completion of the project. To this, the Secretary, Public Works Department, informed that the Kerala State Transport Project works were at standstill for the previous one year. Government had issued notice to the contractor firm M/S Pati-Bel Company for termination of the work and that they claimed for liquidated damages from the Government, which in turn transformed into a dispute and the company stopped the work. After this, negotiations were restarted with Pati-Bel Company for resuming the work. In the meantime, Government retendered the work. But when it was retendered, the amounts quoted were very high when compared to those quoted by Pati-Bel. The witness, Secretary, Public Works Department assured to give more details in this regard later. To a question regarding the enhanced claims of Pati-Bel, and the rates submitted by other contractors after retender, the Secretary informed that in the later stages of negotiation, Pati-Bel Company agreed to reduce their claim from Rs.96 crore to Rs. 26 crore. Of late, Pati-Bel have agreed to do the work for 72.5% in excess of the tender and that proposal was under the consideration of the Government. Pati-Bel had also informed that only if their claim was limited to Rs.35 crore would they go for arbitration. The Secretary further added that he would submit a detailed reply in this regard within 15 days.

11. Regarding maintenance of 1000 kms. of road under the project, the Project Director, informed that about 884 kilometres of road maintenance was over. Only 3 roads namely Munnar-Vattavada. Top station Road, Trivandrum-Ponmudy, Pooppara-Kumily, were the works pending for maintenance. When the Committee enquired about the work of Perumpilavu-Nilambur road and its drainage work, the Project Director disclosed that the said road was not starting from Perumpilavu but from somewhere else. He assured to give a report in this regard after verifying the details. The Committee directed to complete the pending works, if any, in the Nilambur-Perinthalmanna-Perumpilavu Road without delay.

12. The Committee noticed that though the second phase of Kerala State Transport Project works had been there for the previous six years, even patch works were not done in Thalassery-Valavupara, Valapattanam-Thavam roads. The Project Director explained that all the chaos in Kerala State Transport

Project works had arisen due to commencement of the work before the acquisition of required land. The Committee observed that execution of any work before handing over the site was against the Government Order and the Kerala State Transport Project works were also not an exception.

13.In the case of Valapattanam-Thavam road, though the site was handed over to Kerala State Transport Project, even the maintenance works had not been started there. When the Committee enquired about its reason, the Project Director replied that, its tendering was opposed by World Bank, since Phase-I works were pending for completion there. There was specific communication from World Bank regarding this. Out of the 350 kms. of road work in the second phase, only 50% could be completed till then. The Committee noted that even the patch works were pending completion and even Annual Maintenance was not being done. Considering the situation, the Committee realised the need of a recommendation from their part to the effect that when commencement of Kerala State Transport Project work got delayed, annual maintenance had to be executed in such places.

14. The Committee, at this juncture wanted to know about the maintenance works during rainy season and the materials used for it. The Chief Engineer (Roads & Bridges) explained that there was an emulsion which could be used without heating for doing patch works during rainy season. But the Chief Engineer, Kerala State Transport Project added that though this bitumen could be used on a wet surface, sometimes after the rain, it would not be applicable on a water-ridden road.

15. As per the guidelines formulated by World Bank, the Price Adjustment clause was not necessary in contracts having currency upto 18 months. Against this, the Project Management Team (PMT) included provision for price adjustment period in 13 contracts finalised between March and July 2002. The payment made to the contract agencies in respect of these contracts amounted to Rs.2.74 crore. When the Committee enquired about the reason for fixing such a clause in those contracts, the Project Director, Kerala State Transport Project described that price adjustment clause was compulsory in contracts extending beyond 18 months. In the cases of contracts where the period fall below 18 months, then price escalation clause becomes an option. He further clarified that price escalation clause was included in the contract of the said works so as to compel the contractors to quote reasonable tender excess. Otherwise they would quote exorbitant rates. But the said clause was avoided in the subsequent contracts in the light of audit objection. The Committee was pleased with the description of the witness and reminded that in the absence of such a clause, instances of huge escalation of cost as happened in Kallada Irrigation Project would be repeated in the State.

16. The Committee came to know that for engaging consultants in the work of Kerala State Transport Project, the Project Management Team (PMT) invited bids in May 2002. Out of the 29 firms which participated in the bidding, 6 were short-listed. The consultancy firm SMEC International (Australian Company) was awarded the contract. Lack of International experience prevented Firm (B), ie., SPAN-DRD from getting the contract. But Firm (A) left a monetary burden of Rs.3.53 crore to the Government.

The Committee wanted to know as to why international experience was insisted as a criteria for awarding the contract. To this, the Secretary, PWD answered that for selecting a consultancy under World Bank aided project, there were certain specific criteria to be satisfied. In that, certain items were given more weightage and less weightage to some others and the final selection was made based on the weightage obtained in all sections. Eventhough a company performed well in a particular item, when considering all the factors, the same company could be driven out of the race for getting contract. The World Bank guidelines could not be changed even when the variations seemed to be minimum.

17. During the course of implementation of the woks in phase II of Kerala State Transport Project, consultancy contract was awarded and payment to the tune of Rs.2.32 crore was made long before awarding the contract for upgradation works relating to National Highways. The financier of the project, viz. the World Bank did not approve phase II of the project and the work was yet to be awarded. The Committee noted that the action of the PMT in awarding consultancy contract and payment of consultancy fee before tendering the work, as unfair.

18. Though the Project Director attributed non-tendering of the work to very high tender rate, it was not acceptable to the Committee. The Committee desired to know the details of the payment made in addition to Rs. 2.32 crore to the consultants. The Project Director assured to furnish the same without delay. Regarding the payment of Rs. 2.32 crore, he made a clarification that this Rs.2.32 crore involved mobilisation advance too, which was reimbursed from the monthly invoices of the Contractors. Hence, it couldn’t be treated as a loss to the State Exchequer. But it was not satisfactory to the Committee’s point of view. The Committee made a query as to whether pre contract activities such as project preparation, review of project documentation and design, assistance in preparation of bid documents etc. were included in the agreement with the consultancy firm. To this, the Project Director replied that there was an MoU between the firm and Kerala State Transport Project regarding the services of the firm. Not satisfied with the reply, the Committee stressed to know whether the

tender notification clearly specified the duty of the consultants and whether it was included in the agreement between the firm and PMT. The Secretary, PWD vaguely replied that there was no such agreement with the firm. Not satisfied with the reply, the Committee opined that Rs.2.32 crore should have been given only after executing an agreement containing sufficient terms and conditions. The Committee directed the officials to check clearly, the position of MoU and agreement in the contract and report it to the Committee within no time and suggested to furnish a specific reply with regard to the execution of consultancy contract.

19. The audit paragraph mentioned about the extension of contractual period of the work thereby causing an additional burden of Rs.26 lakh to the Government. When asked about the reason for the extension of contractual period, the Project Director informed that, in every contract, the period of contract had to be extended because of many reasons beyond human control. When the contractual period extended, the consultancy period has also to be extended. In this case compensation for security damages to the tune of Rs. 1 crore had been realised from the contractors against the excess expenditure incurred.

20. The Kerala State Transport Project envisaged comprehensive improvement and upgradation of State Highways for a total length of 127.192 kms. But out of this length, 44.43 kms was notified as National Highway by Government of India in October, 2000. Kerala State Transport Project had already spent Rs.75.28 crore for the upgradation of this 44.43 kms. Since the road was notified by Government of India as National Highway, its upgradation and maintenance happened to be the responsibility of the Central Government rather than a State aided project. The Committee desired to know whether the said amount was reimbursed by the Central Government and if not, whether there was any possibility of it. Answering to this, the Secretary, PWD informed that, this work was not handed over to Central Government and it was retained as part of Kerala State Transport Project. Consultation with World Bank for entrusting the work of State Highways was made in 2000. But the above mentioned 44.43 kms. was declared as part of the NH 220, one year after this consultation with World Bank; that is in 2001. Since MC Road was the main anterior road connecting different roads in the State and for the better maintenance of that road, it was decided to continue the above specified 44.43 kms. of road in the State project itself. It was added that this decision was taken at the Government level. He assured that the details of this decision would be submitted to the Committee subsequently.

21. The Committee understood from the observation of the Accountant General that normal rate for maintenance contract of roads such as patch work and filling pot holes was between Rs. 180 per sq. metre and Rs. 203 per sq. metre. But in the Kerala State Transport Project, for the work in respect of upgradation of State Highways, the rate quoted and given to the contractor for the same work was Rs. 301 per sq. metre. When asked to comment on such a difference, the Project Director answered that Kerala State Transport Project work was an upgradation contract which was entirely different from the works of normal patch work and pot hole filling. Moreover, certain items which were not mentioned in the original contract were used during the execution of the work and then fixed as a variation item. Actually pot hole repair was not part of the original contract. Whenever new works were added to the contract, the new item rates were fixed either by the consultant or the Engineer. The rate of new items' were determined on the basis of similar items in the original contract. In the upgradation contract, the rate of every item was high since each item was a high specification one. Moreover, machinery like hot mix plant was used for the work. When the Committee raised doubt as to whether the maintenance work done at a lower rate earlier was also part of the upgradation work, the Project Director, Kerala State Transport Project, clarified that the works which were done at the rate of Rs. 180/sq. metre and Rs. 203/sq. metre were Repair and Maintenance Contract (RMC) work and not upgradation contracts. In RMC works, time span for completion of the work were 15 to 18 months. In Anchal-Kulathupuzha Road, the RMC work was done at Rs. 203/sq.metre. It was done at such a lower rate because the pot hole filling works were done with the pariticipation of local people. In upgradation contracts the rates once approved would be applicable to the entire period of contract.

22. There was provision in the contract for payment of interest free advance to the contract agencies subject to a maximum of 15% of the contract price. Such advance should be repaid after certification of 30 per cent of contract price or nine months after payment of first instalment of advance, whichever period was earlier. But in the contract for upgradation of 254.74 km State Highway in November 2002, the PMT paid Rs. 40.61 crore towards mobilisation advance to the contractor firm. The Committee observed that this was against the agreement. Even though the repayment time was extended by PMT, the contractor firms failed to repay it properly. By giving clarification to this, the Project Director, Kerala State Transport Project informed that, it was not the PMT which allowed extension of time for repayment, but a Steering Committee consisting of the Chief Secretary. The reason for the extension of time was due to the failure of the Government to acquire and transfer the proposed land to the contractor. He also informed that this extension of time

proved to be beneficial to the Government during the time of arbitration, in which the award made to the contractor firm was at a reduced rate. Nevertheless, the Secretary, PWD admitted that tendering of the work without acquisition of land was a mistake on the part of the department.

23. Due to the delay in completing the works in time, the liability fixed on eleven contractors as liquidated damages was Rs. 5.93 crore. But the amount recovered from those contractors was Rs. 1.17 crore only. When asked to comment on the latest position of this case, the Project Director deposed that in many contracts the Department was forced to extend the time for the completion of contractual works due to many reasons such as the changes in the scope of work or design. The Accountant General estimated Rs. 5.93 crore as liquidated damages without taking into account of these aspects. The actual amount which was to be recovered was only Rs. 1.17 crore and that amount had already been recovered. The Committee was of the view that there was lapse on the part of the Department in doing things in conformity to the terms of the agreement. The contractor alone could not be blamed for the delay in starting the work since he was not provided with the required land for starting the work in time. The Committee viewed this as a serious lapse since the Government had to repay the loan amount to the World Bank with 7% interest. They also opined that it was a pitiable situation to note that a project for which more than Rs. 900 crore was spent, allowed to be continued as incomplete for a long time.

24. To a query of the Committee, the Project Director informed that usually Rs. 300 crore was being allocated for maintenance works of roads. But the Committee was of the opinion that, this amount was insufficient for doing maintenance works. Hence the Committee strongly suggested that the department should allocate a fixed amount in the budget for maintenance works alone.

25. When the Committee asked about the work of Nadukanichuram, the Chief Engineer (Roads & Bridges) deposed that its work would begin soon after getting the report of Geological Survey of India (GSI).

Conclusions/Recommendations

26. **The Committee observes that the 'Kerala State Transport Project' launched by the Government of Kerala in June 2002 with the financial aid of the World Bank (76% of the project cost) for the comprehensive development of State Highways and water ways resulted in the extra liability of about Rs. 17 crore to the Government due to factors like un-necessary extension of contractual period by disregarding the guidelines, awarding the contract to the firms without proper evaluation of the**

technical and financial viability, premature conclusion of the contract for upgradation due to non-synchronisation of finalization and consultancy services, exorbitant rates applied for filling pot-holes and for patch works, undue advantage given to contractors due to postponement of recovery of advance and non-recovery of liquidated damages, etc. The Committee observes that in most places where KSTP works have been undertaken, annual maintenance is not being done even though the project got delayed for many years. As a result, many of those roads are not in usable condition. Hence, it is recommended that annual maintenance works should strictly be undertaken by PWD in all places where the Kerala Transport Project work got delayed. The annual maintenance of roads must be completed before the onset of rainy season so as to avoid extra expenditure. The Committee also recommends that necessary fixed amount should be allocated in the budget every year for undertaking annual maintenance of roads irrespective of whether they come under KSTP or not.

27. **The Committee further understands that one of the most prominent reasons, which caused delay in KSTP works is the execution of works before handing over the required land. This is an inexcusable lapse on the part of the department and totally against the directions of the Government in this regard. Not only that, to add to the severity, the department has to pay interest for the aid received from World Bank besides incurring extra expenditure due to indefinite delay in the completion of the work. Hence, the Committee suggests to avoid such bottlenecks and recommends that road works assigned to KSTP must commence within three months from the date of assignment of such works and that the works shall be entrusted to KSTP only after acquiring the required land for the work.**

28. **The Committee views as very improper the action of the dept in including price adjustment clause in the agreement for works under KSTP having duration up to eighteen months. Though the department has informed that they are not resorting to such practices nowadays in the light of audit objections, they cannot be acquitted from the guilt that had been done earlier.**

29. **The Committee opines that awarding of consultancy contract for Rs. 2.32 crore before tendering the work was a serious mistake because there was no agreement with the consultancy firm regarding project preparation, review of project documentation and design, assistance in preparation of bid documents etc. The department's argument that there was an MoU with the firm is not at all acceptable to the Committee.**

30. **The Committee recommends that all the works under KSTP which are hindered by various obstacles should be completed within a minimum stipulated time so as to avoid further financial burden to the Public exchequer.**

31. **The Committee regrets to note that even though the Committee had directed the Government officials to furnish the details of the progress of works in different places under the project, viz., kms of roads fully completed, roads nearing completion, balance kms to be completed etc. within a week's time, the concerned department has not obliged to the direction till now. The Committee views this as a serious contempt and treats this as an atrocious lapse of the officials in carrying out the basic responsibilities.**

32. **Besides this, the details of rates quoted by firms other than Patibel after the retendering of the work, the position of the work relating to Nilambur-Perinthalmanna-Perumpilavu Road, the amount paid to the consultants in addition to consultancy contract, the details of MoU and agreement made with the consultancy firm etc. which were desired by the Committee were also not received till date. Hence, the Committee suggests the Government department to furnish all the required details with utmost urgency.**

ARYADAN MUHAMMED,

Chairman,

Committee on Public Accounts.

Thiruvananthapuram,

29th June, 2009.

APPENDIX I

Summary of Main Conclusions/Recommendations

Sl.No.	*Para No.*	*Department Concerned*	*Conclusions/Recommendations*
(1)	(2)	(3)	(4)
1	2	Public Works & Power	The Committee observes that the construction work of the bridge between Aroor and Arookutty in Alappuzha District proved to be a classic example of the inefficiency and lethargic attitude of the PWD, as the works started in October 1992 was completed only by February 2002 after an inexcusable lapse of 9 years. The Committee also views with great concern the fact that the estimate as per 1992 SoR (Scheduled of Rates) soared up from Rs. 5.02 crore to Rs. 12.61 crore as per October 2002 SoR. The Committee is not at all satisfied with the department's explanation that they were forced to allow 33.9% hike in the estimate since the required land for the implementation of the project was not handed over to the contractor at the proper time. The Committee also views with suspicion the department official's reply that the delay in shifting the electric post in the site hindered the commencement of the work. But the Committee notes with dismay that even though the work order was issued in April 1993, the application for shifting the electric post was submitted only in the year 1996. It is opined that besides the PWD, the KSEB also showed unforgivable indifference in this matter since the Board completed

(1)	(2)	(3)	(4)
			the shifting of the electric post only by the year 2002 though the application for the same was submitted in the year 1996. The Committee does not understand the Government reply that the increase in estimate cost was allowed by the Arbitration Committee, as there is a Government order (1986), which clearly states that Arbitration clause should not be included in any PWD works. The Committee in this connection is dissatisfied with the action of the department in not complying with the direction of the Committee to submit the details regarding the position of Arbitration clause in current PWD works and its implementation in the above specific work. The Committee deplore the silly excuses tendered by the department that the delay in beginning the construction work was due to reasons like delay in the shifting of ferry landing jetty in the alignment of the site, protest of fishermen against the construction of earthen bunds instead of island bunds etc. In reality, it resulted in the lapse of a period of almost 7 years and loss of Rs.2.90 crore. The Committee regrets to note that the officials who represented the department for witness examination did not even have common knowledge about the details of the above work and reminds that such ignorance will not be tolerated in future.
2	6	Public Works	The Committee observes that a village road in Malappuram District sanctioned at an estimated cost of Rs.1.95 crore was completed at a cost of Rs. 3.48 crore

(1)	(2)	(3)	(4)
			which is an unjustifiable hike and is equivalent to the cost of construction of a Major District Road. This happened mainly due to lack of foresightedness on the part of the officials and inexcusable lapse shown in the investigation work of the project. The Committee ridicules the Department officials' petty explanations like additional filling done in the curved alignment, raising the road level above the Chaliyar river by extra earth filling etc, and opines that such basic factors should have been taken into consideration well before the commencement of the project. The Committee thinks that it is not eventual but purposeful. Since the Committee is fully aware of the fact that the investigation wing of the PWD is a haven of manipulators, it is suggested that in future, investigation works of any project undertaken by PWD should be entrusted with quality based institutions like Lal Bahadur Shastri Institute or Government Engineering Colleges. The Committee views with serious concern the lackadaisical attitude of the PWD officials which resulted in undue extra expenditure of crores of rupees from the public exchequer.
3	9	Public Works	The Committee severely criticise the inefficient approach of the Public Works Department towards projects which are designed for public utility. The construction of the bridge across river Pampa in Ozhuvampara- Vadasserikkara road in Pathanamthitta District which caused extra liability of Rs. 39.68 lakh to the Government and a lapse of over

(1)	(2)	(3)	(4)
			an year is also not an exception. The Committee lament the childish reason attributed by the department officials that the change in design approved by DRIQ (Design Research Investigation and Quality Control Board) was not incorporated due to oversight. The Committee regrets to note that though they directed to furnish certain details on the change in the design of the project such as the date of change in the design from well foundation to open foundation, whether Design Research Investigation and Quality Control Board conducted investigation before changing the design and if so, the reason for the change, the date of tendering of the work etc., the desired details are yet to be submitted to the Committee. The Committee views such kind of irreverence very seriously and suggests to furnish the above details without any delay.
4	26	Public Works	The Committee observes that the 'Kerala State Transport Project' launched by the Government of Kerala in June 2002 with the financial aid of the World Bank (76% of the project cost) for the comprehensive development of State Highways and water ways resulted in the extra liability of about Rs. 17 crore to the Government due to factors like un-necessary extension of contractual period by disregarding the guidelines, awarding the contract to the firms without proper evaluation of the technical and financial viability, premature conclusion of the contract for upgradation due to non-synchronisation of finalization and

(1)	(2)	(3)	(4)
			consultancy services, exorbitant rates applied for filling pot-holes and for patch works, undue advantage given to contractors due to postponement of recovery of advance and non-recovery of liquidated damages, etc. The Committee observes that in most places where KSTP works have been undertaken, annual maintenance is not being done even though the project got delayed for many years. As a result, many of those roads are not in usable condition. Hence, it is recommended that annual maintenance works should strictly be undertaken by PWD in all places where the Kerala Transport Project work got delayed. The annual maintenance of roads must be completed before the onset of rainy season so as to avoid extra expenditure. The Committee also recommends that necessary fixed amount should be allocated in the budget every year for undertaking annual maintenance of roads irrespective of whether they come under KSTP or not.
5	27	Public Works	The Committee further understands that one of the most prominent reasons, which caused delay in KSTP works is the execution of works before handing over the required land. This is an inexcusable lapse on the part of the department and totally against the directions of the Government in this regard. Not only that, to add to the severity, the department has to pay interest for the aid received from World Bank besides incurring extra expenditure due to indefinite delay in the completion

(1)	(2)	(3)	(4)
			of the work. Hence, the Committee suggests to avoid such bottlenecks and recommends that road works assigned to KSTP must commence within three months from the date of assignment of such works and that the works shall be entrusted to KSTP only after acquiring the required land for the work.
6	28	Public Works	The Committee views as very improper the action of the dept in including price adjustment clause in the agreement for works under KSTP having duration up to eighteen months. Though the department has informed that they are not resorting to such practices nowadays in the light of audit objections, they cannot be acquitted from the guilt that had been done earlier.
7	29	,,	The Committee opines that awarding of consultancy contract for Rs. 2.32 crore before tendering the work was a serious mistake because there was no agreement with the consultancy firm regarding project preparation, review of project documentation and design, assistance in preparation of bid documents etc. The department's argument that there was an MoU with the firm is not at all acceptable to the Committee.
8	30	,,	The Committee recommends that all the works under KSTP which are hindered by various obstacles should be completed within a minimum stipulated time so as to avoid further financial burden to the Public exchequer.

(1)	(2)	(3)	(4)
9	31	Public Works	The Committee regrets to note that even though the Committee had directed the Government officials to furnish the details of the progress of works in different places under the project, viz., kms of roads fully completed, roads nearing completion, balance kms to be completed etc. within a week's time, the concerned department has not obliged to the direction till now. The Committee views this as a serious contempt and treats this as an atrocious lapse of the officials in carrying out the basic responsibilities.
10	32	,,	Besides this, the details of rates quoted by firms other than Patibel after the retendering of the work, the position of the work relating to Nilambur-Perinthalmanna-Perumpilavu Road, the amount paid to the consultants in addition to consultancy contract, the details of MoU and agreement made with the consultancy firm etc. which were desired by the Committee were also not received till date. Hence, the Committee suggests the Government department to furnish all the required details with utmost urgency.

APPENDIX II

REMEDIAL MEASURES TAKEN STATEMENT IN DRAFT PARA ON EXTRA LIABILITY DUE TO INORDINATE DELAY IN COMPLETING WORK UNDER PARA 4.4.3 OF COMPTROLLER AND AUDITOR GENERAL OF INDIA REPORT FOR THE YEAR ENDED UPTO 31-3-2003

The observation in the audit for the year 2002-03 for sanctioning of enhanced rates vide G.O.(Rt) No. 642/01/PWD dated 30-6-2002, for the above work in the light of the finding that "there was no reported departmental failure to supply of materials" is not correct. It is true that there was no revision of schedule of rates during the period from April 1993 to April 1995. One of the main reasons for recommending the contractor's request for the enhanced rates was the failure on the part of department in procuring departmental materials in time due to paucity of funds and non-availability of letter of credit. Another Important reason for the delay in completing the work was non-coordination of other departments. For example, Rs. 1,57,300 was deposited in favour of the Executive Engineer, Electrical Division, Cherthala on 19-12-1996 for shifting the transformer and electric posts and lines in the alignment of the approach road but shifting was carried out only in February 2002. Besides that, revised additional works were also required for the satisfactory completion of the work.

Even though the work order was issued to the contractor on 28-4-1992, the work could be started only after six months due to the delay in finalizing the foundation design. The above situation adversely affected the progress and completion of the work.

The estimated cost of Rs. 5.02 crore Increased to Rs. 9.70 crores due to change in foundation design. The allotment of funds was not as per the requirement. As per the agreement conditions, the work should have been completed by 27th April 1995. As such, the work should have been completed on or before 27-10-1995. But due to the delay in finalizing the foundation design, there was a time lag of 6 months from the date of issue of work order. The actual requirement of funds for the timely completion of the work was Rs. 9.70 crore but the fund received was only Rs. 3.17 crore. The actual expenditure as on the expected date of comptetion was Rs. 2.75 crore only.

Several major extra items were necessitated for the satisfactory completion of the work, which caused considerable hike in the over all expenditure. Construction of the Road Under Bridge, culvert and C.C. drains etc. were not incorporated in the original agreement. This also contributed to the enhancement of the cost.

Due to the delay in getting letter of credit, timely supply of departmental materials was delayed during the course of work. The contractor had stopped the work during the following months viz, 1/94 to 3/94, 10/94 to 12/94 and in 10/95.

The alignment of the bridge is on PWD Roads coming under the jurisdiction of the Executive Engineer, PWD, Roads Division, Alappuzha. The ferry shifting had to be arranged by the Panchayat Authorities of Aroor and Arookutty. Even after a lapse of more than two years this was not got done. Under the above circumstances, huge delay occurred. The only alternative was to get the work done by the contractor. This also contributed to the additional expenditure.

Non-shifting of electric lines and posts along the alignment of the bridge happened to affect the progress of the work considerably. An amount of Rs. 1,57,300 was deposited to KSEB authorities for shifting one transformer and certain high tension and low tension lines on 19-12-1996. But the shifting work was completed only in February 2002.

Besides the above, certain laxity on the part of the contractor also delayed the work. All the delays occurred in various spells during the course of construction of the work. In short, several hindrances occurred at various stages till the completion of the work, resulting in huge delay in completion of the work. Instruction has since been issued regarding 'extra items', shifting of utilities etc. in order to avoid delay during construction period.

In view of the explanation, the audit report may be dropped.

GOVERNMENT OF KERALA

PUBLIC WORKS (G) DEPARTMENT

Remedial Measures Taken Report on para No. 4.3.4 of C& AG Report for the year ended 31st March 2005 (Civil)

Para No.	*Recommendations*	*Action Taken*
(1)	(2)	(3)
4.3.4	**Extra expenditure in the formation of a village road. Post contractual change of gradient of a village road resulted in extra expenditure of Rs. 86.04 lakh.**	
	Government sanctioned (March 1998) formation and improvements of Mundengara Pullipadam Odayikkal road (a village road) in Malappuram District for Rs. 1.95 crore. The Chief Engineer, Roads and Bridges sanctioned (April 2001) the work technically for Rs. 2.80 crore. The Executive Engineer, Roads Division, Manjeri, whose records were test checked during April-May 2004, awarded (May 2001) formation, side protection, cross-drainage and metalling and black topping components (excluding supply of cement and	The road Mundengara-Pullipadam-Odayikkal road was aligned through hilly rolling terrain with elevation of low lying valleys on either sides in majority of the reaches. The portion aligned through plains are relatively less. The major variation in quantities of filling are in reaches formed in curved alignment to suit the hill tracks and maintain the formation levels above, flood levels. These reaches are susceptible to inundation by backing up of high flood from Chaliyar River during monsoon. The rock edges were seen

(1)	(2)	(3)
	steel) for execution on piece rate basis at 30 percent above estimate rate for an agreed cost of Rs. 3.06 crore. Execution of these components was completed by June 2003. Payment of Rs. 3.48 crore was made as of January 2004. Formation component of the estimate provided for 28,665 cubic metre (cum) of earth filling with contractor's own material. Against this, the quantity actually executed and paid for was 100,528 cum. Out of this excess quantity of 71,863 cum, 41,607 cum filling was necessitated due to reduction in cutting quantity (21840) and extra filling for 5.370 Km portion of road lying at a lower level (19,767 cum). There was, however, no reasonable justification for the remaining quantity of 30,256 cum. Further, as a consequence of this extra filling, the side protection component involving random rubble masonry in cement mortar for retaining wall was executed for an extra quantity of 5,775 cum. Department's contention was that increase in filling quantity was to ease the gradient to the 'major district road standard'. However, this does not hold good as it was	exposed in various chainages, which were proposed to be blasted in the original estimate. These locations are either in built up areas or in garden lands were blasting cannot be resorted to. Hence such reaches of the road were formed by raising which resulted in excess quantity of filling and protection work. Also in several reaches the formation were raised by filling to avoid submergence by storm water. Under the above circumstances, the filling done was inevitable to the proper completion and safety of the road. Road formation level was executed fully with contractor's own earth to protect from storm water and the side protection work was also executed for avoiding erosion of filled up side berrns. Side protection was done only at very essential reaches under the above circumstances and only for the safety of the road which avoid frequent maintenance and accidents. The formation level raised by filling in order to protect the road from storm water resulted in increased culvert height proportionately. The trail pit was taken on cutting portion only. During the

contrary to the Government sanction for forming and improving the village road to trafficable gradient. The fact that a portion of the road to be formed passed through low lying land and required additional filling to ease the gradient was very well known to the Department and as such it ought not to have escaped notice at the time of preparing the original estimate. Thus the post contractual changes made in the Scope of work, against the intention of the Government, led to extra filling (30,256 cum) and masonry work (5,775 cum), resulting in extra expenditure of Rs. 86,04 lakh.

excavation for foundation of culvert the earth is seen very loose because the culvert is proposed in natural flow streams and other river valley portion and this portion is seen clay and soil collected areas. Hence Cement concrete foundation was used for only 10 Nos. culvert 2 M span and other 13 Nos. of culvert, abutment was done by RR 1:6. Cement concrete was done for very essential reaches at the safety for the culverts and roads.

Besides, no additional expenditure was incurred in respect of this work over the technically sanctioned amount due to the increase in the quantity of filling and side protection work, ie., the expenditure for the excess quantity of filling and protection was met from the savings amount of other items of work.

Considering the length of the road, terrain through which the alignment passes, difficulties due to built up and cultivated adjoining lands on either side, susceptibility of certain reaches to the backing up of floods from Chaliyar River etc., the barest minimum increase in the quantities of earth filling and side protection work may be accepted as inevitable.

Action Taken Report on para No. 4.3.5 of C & AG Report for the year ended 31st March 2005 (Civil)

SI. No.	*Para No.*	*Subject*	*Action Taken*
(1)	(2)	(3)	(4)
1	4.3.5.	**Extra liability due to change in design** Failure of the Department in ensuring suitability of design to the site conditions and frequent changes in the design led to delay in completion of the work and consequential extra liability of Rs. 39.68 lakh. The Superintending Engineer (SE.), Roads and Bridges, South Circle, Thiruvananthapuram awarded (March 1999) the work of construction of a bridge at Bunglowkadavu across Pampa river in Ozhuvampara-Vadaserikara road in Pathanamthitta district to a contractor at a contract price of Rs. 2.55 crore. The site was handed over in April 1999 and the date of completion was March 2001. which was extended up to March 2004. The construction was completed in September 2004. Payment made to the contractor was Rs. 2.33 crore as of December 2004. Estimate for the work was prepared on the basis of drawing approved (May 1994) by the Design	The excess expenditure incurred to the above work due to the following reasons. The foundation changes of piers P3, P4 and P5 was inevitable due to a later stage development in the flow parameters of the river due to the power production in the Power House kept much upstream and due to the intermittent tail race flow. The new design adoption were quite natural due to the condition that was prevailing in the river flow and in the river bed. The construction of the bridge ought to be something that is fitting to the natural condition on prevalent at the site. Certain natural condition can be ascertained only during the execution of the work which should be admitted only through examination. In this case the change was adopted after minor changes in design to accommodate the actual natural condition.

Research Investigation and Quality Control (DRIQ) Board according to which the piers and one abutment of the bridge were to have open foundation, whereas the second abutment was to have well foundation. It was noticed (December 2003) in audit that change in design effected (June 1994) by the DRIQ Board altering the well foundation of the second abutment to open foundation was not considered while tendering and arranging the work. After commencement of the work, the design was changed to open foundation for the second abutment also due to necessity at site. Again it was found to be difficult to adopt open foundation for the four piers in the river portion it was also changed to twin well of 4.00 M dia. and the Chief Engineer, Roads and Bridges, Thiruvananthapuram approved the change in May 2000. The design changes were communicated to the contractor in July 2000.

Meanwhile, alleging loss due to the delay in finalization of design and specifications for the foundation of the bridge, the contractor demanded (September 2000) payment at 1999 schedule of rates with his quoted rate of 44.5 % above estimate for work done from July 2000. The arbitration

Hence the changes were occurred and it is a fact. The same may please be admitted. Besides, the Arbitration Committee considered the claim of the contractor towards escalation cost of sted used for the work and recommended 30% above estimate rate as per 1999 schedule for the works executed after the original date of completion of the work. In the above circumstances, the extra liability incurred due to change in design may be admitted.

(1)	(2)	(3)	(4)
		committee. which examined the matter, observed (April 2001) that there was time overrun of 13 months due to departmental lapses and recommended payment at 30% above as per 1999 schedule of rates for works executed after 23 March 2001, being the date originally fixed for completion of the work. Government accepted the recommendation in October 2001 which resulted in extra liability of Rs. 39.68 lakh. Thus, due to the failure of the department in ensuring that the design adopted for preparation of estimate was suitable to the site conditions, the department had to change the design frequently and it took 13 months to finalize the design thus delaying the completion of the work entailing extra liability of Rs. 39.68 lakh.	

GOVERNMENT OF KERALA

PUBLIC WORKS DEPARTMENT

Report of the Comptroller and Auditor General for the year ended 31st March 2005 (Civil)—Statement showing remedial measures taken by Government in respect of audit paragraph 4.2.1

SI. No.	*Para No.*	*Subject*	*Remedial measures taken*
(1)	(2)	(3)	(4)
	4.2.1	**Kerala State Transport Project Lapses/defects in the contract** *Provision for payment of costs escalation and consequent loss* The guidelines formulated by the World Bank for procuring loans and credit by the Government agencies enjoined, among other matters, that price adjustment clause was not necessary in contracts having currency upto 18 months. Disregarding these guidelines, the PMT included provision for price adjustment in 13 contract packages finalized (between March and July 2002) for maintenance of road under phase I, the contractual period of which were between 12 and 15 months. The extent of payment made to contract agencies towards cost escalation in respect of these	The First Year Maintenance Contracts were arranged as per the World Bank Guidelines. The tender documents were prepared as per the Standard Bidding Documents of the World Bank. The provision for price adjustment clause is included in the Procurement Guidelines for adjusting upward and downward changes of major cost components of the contract such as Labour, plant and machinery, bitumen and fuel. As per the procurement guidelines, contracts are classified fixed rate contract and contract with price adjustment clause. The fixed rate

(1)	(2)	(3)	(4)
		contract was Rs. 2.74 crore. The PMT, while concurring with the audit points that price adjustment clause need not have been included in these contracts, held that only bitumen and petrol, oil and lubricants were brought within the purview of price adjustments with the intension of obtaining attractive and competitive offers. This argument is hypothetical and therefore not maintainable. Inclusion of provision for price adjustment clause in contravention of the World Bank guidelines in these contract led to avoidable expenditure of Rs. 2.74 crore.	contracts are those contracts where the contract price is fixed and the contract period is normally less than 18 months. Fixed rate contracts are adopted for procurement of heavy machinery and other capital goods. Variable contracts are adopted in case of civil contracts were the benefit of price adjustment clause is also included in the bid document for obtaining more competitive bid price. Considering the large fluctuation in the price of bitumen and fuel, the World Bank had approved the Bidding Documents of Year I and year II maintenance contracts with price adjustment clause. Accordingly KSTP had included price adjustment clause for Bitumen and Fuel, which is limited only to 30% of the total value of the Work. (i.e. 24% for Bitumen and 6% for Fuel). In the Year I and Year II maintenance contracts, the price adjustment for bitumen and fuel was included since the fluctuations in the cost of bitumen and fuel are .more and if the cost of bitumen and fuel were

reduced, this would be advantageous to Government. The Bank has agreed to this, since such provision in the contract would give a better bid price under competitive bidding process.

In the Year III maintenance Contracts, the provision of price adjustment was not included in the bid document in the case of contracts having contract period less than 18 months. The rate quoted for those contracts having period less than 18 months was higher compared to contracts having price adjustment clause. Therefore it is evident from the above that the price quoted for the contracts with price escalation clause is more competitive.

Engaging of consultants

Avoidable expenditure due to awarding contract at higher rate

The project also provided engaging the services of a consultant with sufficient experience to assist implementation of the component 'institutional Strentghening and Action Plan'. For this purpose, the PMT invited bids in May 2002. Out of the 29 firms, which responded (May invited bids in May 2002 Out of the 29 firms, which responded (May 2002), 6 firms were

In the evaluation process the technical bid is opened first and the firms scoring more than 75% in the technical evaluation alone are considered for the financial evaluation. The technical proposals were evaluated and approved by the Bank on 28th March 2003. The result of the technical evaluation are as under.

1.	SMEC International Australia	94.17	pass

(1)	(2)	(3)	(4)

short listed (June 2002) applying the yard sticks prescribed by the World Bank. The Chief Executive (PMT), the Chief Engineer (R&B) and the Superintending Engineer (Projects) conducted technical evaluation of bids individually. Accordingly to the guidelines laid down by the lending agency the final ranking should be on the basis of the total of 75% of score obtained on technical evaluation and 25% of score awarded on financial evaluation. The final score position of the three front-runner firms was as shown below and the PMT awarded the contract to the firm SMEC International (Australia).

Name of firm	*Finan-cial price offered*	*Score awar-ded*	*Total score % of (iv) plus 25% of (iii)*	*Total score 75% of (iv) plus 25% of (iii)*	*Rank*
		Rupees	*(Points)*	*(Points)*	
(i)	(ii)	(iii)	(iv)	(v)	(vi)
SMEC International, Australia (A)	8,67,86,644	59.33	94.17	85.46	I

2.	Span Consultants (P) Ltd., India	77.99	pass
3.	Scott Wilson Kirk Patrik & Co Ltd. UK	75.60	pass
4.	WSP International, UK	67.04	Fail
5.	Wilbur Smith Associates-US	50.20	Fail

The minimum marks for pass is 75. Thus only the first three firms were short-listed and only their financial bids were opened. In the financial evaluation, the methodology is to award 100% marks to the firm that quoted the lowest amount and the marks awarded to the other firms are directly proportional to this. The financial score is as under.

A.	SMEC International Australia	59.33	Rs. 8,67,86,644
B.	Span Consultants (P) Ltd., India	100.00	Rs. 5,14,91,530
C.	Scott Wilson Kirk Patrik & Co. Ltd. UK	55.51	Rs. 9,27,63,064

SPSAN-DRD JV, Indaia (B)	5,14,91,530	100	77.99	81.49	II
Scott-Wilson Kirk Patrick, UK,(C)	9,27,63,064	55.51	75.60	70.58	III

Thus, despite having scored 100 points on financial evaluation, Firm 'B' could not come out successful in the final run, as it missed 1.97 points on final evaluation. Analysis of records relating to evaluation of bids confirmed that the evaluated were not objective in determining the acceptability of various parameters and that they did not pay due wait age to the actual requirements of local condition for the institutional strengthening of the Department. . While certifying the academic qualification of the key personnel projected by Firm 'B' as 'good', they were judged as possessing lesser international experience, which, in as much as the demands of State Departments are concerned, may not necessarily be a fair criterion for technical evaluation. The selection of 'A' which enjoyed only a thin lead of 1.97 points in the final running, however, left a monetary burden of Rs. 3.53 crore on the project cost. As Firm 'B' was short listed only after ensuring that technical parameters contained in their offer were within the bench mark fixed, the noticeable mismatch between the

In the combined evaluation the weightage for the technical and financial score are 75% and 25% respectively. Accordingly the final combined score is as follows:

	Tech Score	*Fin. Score*	*Comb Score*	*Rank*
A. SMEC International Australia	94.17	59.33	85.46	1
B. Span Consultants (P) Ltd., India	77.99	100.00	83.49	2
C. Scott Wilson Kirk Patrik & Co Ltd. UK	75.60	55.51	70.58	3

One of the basic considerations in process of selection for employing consultants is of ensuring high-quality services. The procedure followed under the Bank guidelines to ensure high quality, while keeping the need for economy is to fix relative rates to

(1)	(2)	(3)	(4)
		financial offers of ‘A’ and ‘B’ ought to have been taken up with the lending agency before identifying the successful bidder. Commensurate benefit from increased outgo was not discernible as basis of award of points on technical parameters did not consider objective criterion relevant to conditions of work and were not devolved on granular level. As all the bidders were found to be technically acceptable, KSTP could not derive benefits commensurate to the extra liability of Rs. 3.53 crore	be given to the quality and cost apriorie, depending on the nature of assignment. In the present case this was prefixed as 75% weightage for quality and 25% for cost. A transparent tender procedure was adopted and regorous evaluation was made and consequently the firm to which the contract was awarded came out with the highest of combined score for quality and cost. The selection has been made absolutely correctly. It would go against the basic principles and sanctity of a tender process to pick up a firm by deviating from evaluation parameter as suggested by audit.:
		Avoidable expenditure due to premature conclusion of contract. The project plan envisage employment of the services of a consultant to supervise works relating to upgradation of State Highways. In December 2003, the PMT awarded the	Contract with M/s BCEOM, French Consultants, Construction Supervision Consultant for Phase-II Up-gradation Contracts was finalized and the Agreement was executed on 23-12-2003,

consultancy contract relating to up-gradation work under Phase II to an international firm for a contract price of Rs. 15. 75 crore. The contractual period of the consultancy contract was 36 months. The contractual responsibilities of the consultant firm were (a) to achieve high quality in construction; (b) to ensure that works were carried out in full compliance with the engineering design/technical specification; and (c) to ensure timely completion of works. These contractual obligation would indicates that the activities of the consultant were to go hand-in-hand with the up-gradation work. The contract for up-gradation had not, however, been awarded as of December 2004. Even before finalizing the contracts for up-gradation works under Phase II, the consultancy contract was awarded and they were paid an aggregate amount of Rs. 2.32 crore between May and November .2004 towards reimbursement of remuneration paid to key' personnel and expenditure on other purposes. Thus due to non-synchronization of finalization of contracts for up-gradation works and for consultancy services, payment of Rs. 2.32 crore made to the consultant did not serve any intended purpose. The PMT clarified (September 2004) that services of the firm were utilized for certain critical pre-contract activities, such as, project preparation review of project documentation and design, assisting in preparation of bid documents etc. The project, however, did not contemplate employment of consultant for these pre contract programmes

on the assumption that the Phase-II Up-gradation Contracts (Package-V, VI & VII) will be cleared by the Bank in the last quarter of the financial year 2003-2004. However dueto certain administrative reasons such as non-availability of land, Bank has not issued the clearance. In the meantime the Consultants was mobilized in May 2004 and requested for mobilization advance in June 2004, which was paid by KSTP. Also direction was given to mobilize only skeleton staff, since there is some more delay in awarding the civil works.

As per the agreement executed with the Supervision Consultant, the task include the study and review of available data reports and contract drawing structure design, verify BOQ evolve prepare and implement project quality plan etc. These pre-construction activities are to be carried out by the supervision consultant prior to the mobilization of the Contractors. Accordingly Supervision Consultants were mobilized prior to the award of the civil contracts.

(1)	(2)	(3)	(4)
		and the services state to have been rendered by the consultant firm were outside the ambit of contractual responsibilities specified in the agreement. Due to advance positioning of the consultant even before awarding the contract of construction, the possibility extension of time beyond the stipulated 36 months for the consultants exists, which would lead to extra payment to them.	In the Mid Term Evaluation Mission November 2004, the lending agency had out forward the condition to acquire minimum 20kms of continuous encumbrance free stretch of land for issuing clearance (NOC) by the bank. Hence the award of civil works was delayed. Therefore services of CSC Phase II mobilize earlier had been utilized as under: (1) In recognition of the experience gained in Phase I contracts, it was essential to focus of and expedite the pre-contract works in order to (a) Satisfy the criteria imposed by the World Bank that unencumbered land shall be available prior to their approval of contract awards and (b) Avoid potential disruption and delays to construction progress.

(2) In the absence of appropriate resources within the KSTP to conduct these operations, converting 3 crore packages and approximately 330KM, it was decided, with the concurrence of the World Bank, to mobilize a skeleton staff of the CSC II to assist the PMT in a number of critical pre-construction activities e.g.

(a) Evaluation of DPR

(b) Review of Project documentaion and designs

(c) Analysis and selection of priority section for land acquisition and fixing milestones for construction

(d) Project center line marking in order to facilitate:

(i) Identification of utilities and encumbrances within the right-of-way

(1)	(2)	(3)	(4)
			(ii) Avoidance of unnecessary land acquisition, which resulted a huge savings of money to be given as land and property compensations.
			(iii) Alignment reviews with respect to existing properties and tropography.
			(3) Notice to proceed with instructions to mobilize the CSC-II was consequently issued vide letter PWD/KSTP/PMT/D&IT/506, dated 1-1-2004. The employment of the Construction Supervision Consultant (CSC) at the pre-Construction stage was effected for the very valid reason that supervised pre-construction would contribute to reduction in the cost of land acquisition, shifting of utilities and construction work.

(4) This is so on account of the fact that fine tuning of the detailed project report (DPR) at the implementing stage is found to add considerably to the utility of the DPR. Taking the case of underground utility as an instance, the actual alignment of such utilities would not be available in DPR, but would need to be firmed up on the basis of trial pit investigation to be carried out as a pre-construction activity, which if not done, may dampen the pace of construction of work once started, for want of relocation of utilities, thereby adding to the cost of construction, on account of delays caused due to non shifting of utility.

However the services of CSC phase II had been demobilised in June 2005, since the clearance for Phase II Up-gradation contracts is still awaited from the World Bank. The Consultance will

(1)	(2)	(3)	(4)
			be re-mobilized only after obtaining the clearance of Bank for the Phase II Packages. There is no intention to increase the contract amount or the man-month of the CSC due to the early mobilization.
		Extra financial commitment on account of extension of contractual periods The PMT concluded two contracts (May 2002 and June 2002) for the construction, supervision consultancy and technical audit of work under the Road Maintenance Component of the Project. The aggregate contract outlay was Rs. 1.80 crore and the construction supervision was for one year from the date of execution of agreement. The road maintenance works, arranged under different contract packages were scheduled for completion between April and July 2003. The civil contractors, did not, however, complete the works within the period specified in the agreements. The Steering Committee monitoring the project implementation, therefore, resolved (February 2004) to extend the period of contracts for construction supervision consultancy and technical audit till December 2003 in one case and till February 2004 in the other case. According to the Steering Committee, the Civil contractors failed to complete the	The Construction Supervision and Technical Audit services for the First Year maintenance programme were awarded to two consultants viz. M/s Lea Associates South Asia Pvt. Ltd, for northern districts and M/s. Intercontinental Technocrats Pvt. Ltd, New Delhi, for central region. Some of the contracts had to be extended for valid reasons like in the case of 7 contracts are given as Annexure I. Liquidated damages (Rs. 17 Crores) have been imposed for lag in the achievement of the prescribed milestones as approved in the work Programme. Supervision of work was

maintanance work for a variety of reasons, such as heavy monsoon, substitution of items of works with new ones, lackluster performance of contractors etc. Audit scrutiny further showed that one of the contractor firms for construction supervision consultancy appointed its 'Team Leader' only after four months from the date of awarding the contract, whereas, in the second contract the 'Team Leader' appointed by the contractor firm was found to be more capable of delivering of goods.

The obligations of contractors for construction supervision consultancy envisaged in respective contractors were, among other things, (i) ensuring timely commencement of civil works; (ii) monitoring financial and physical progress of works; and (iii) ensuring timely completion of works without diluting quality stands. Failure of contract agencies to fulfill these requirements led to delay in completion of the work resulting in extra financial commitment of Rs. 26 lakhs to the Government.

Arrangement of works

Appropriation of borrowed funds for the improvement of National Highways

The State Government launched the project with the overall objective of comprehensive improvement of the State Highways. In November 2002. The PMT entered into a

in any case necessary for the complete period of execution of the contracts. Also on completion of the works the built drawings and final bill of the contractor are required to be verified and approved by the Consultant. Therefore the consultancy arrangements had to be continued till the works where finally completed as otherwise absence of supervision will lead to decline in quality and affecting the durability of the asset. The situation is avoided by continuing the engagement of the consultants up to the satisfactory completion of each of the work. However in doing so the full complement of staff engaged at start of the work was not allowed to be continued. Instead only reduced staff strength was allowed between the dates from September 3 to February 2004. The total amount of LD imposed is Rs. 1.17 Crores where as the additional expenditure towards extension of service of the year 1

(1)	(2)	(3)	(4)
		contract with a firm for the up-gradation of the State Highways for a total length of 127.192 km for a contractual price of Rs. 215.50 crore. Scrutiny revealed that a portion of the road proposed to be upgraded under the contract (length 44.43 km) had been notified as National Highway by the Government of India in October 2000 and that the State Government had transferred the ownership of road to the Government of India in December 2002. As the upkeep and maintenance of the National Highways are the responsibilities of the Government of India, the State Government should not have awarded the work to the contractor and the appropriation of Rs. 75.28 crore (approximately) from borrowed funds constituted and injudicious change on the project.	supervision consultants is only Rs. 0.26 Crores. The amount quantified and shown in the draft, as Rs. 0.60 crores is not correct The Project "Kerala State Transport Project" was initiated by Government of Kerala during 2000 and the roads were identified based on priority on various aspects as studied under the Strategic option Study conducted By M/s. RITES Government of Kerala had decided to carryout the Up-gradation/Maintenance of the selected road sections in consideration of the future development of the area. Accordingly KSTP had executed agreement for Up-gradation KSTP-I among other upgradation packages. This covers the Main Central Road included upgrading the road to international standard with geometric and surface improvement. The benefit of the road would be the economic

growth of the areas. Later on a section of the Main Central Road from Kottarakkara to Kottayam was declared as National Highway as per the request of the State Government.

Kerala State has a National Highway network of nearly 1500 km length. It gets from the Ministry of Road Transport and Highways (MORTH) an annual plan allocation in the range of Rs. 70-75 crores for new works. With this low level of allocation it could not be made possible to effect the needed improvement with the result that today 60% of the National Highway length in the State is below even standard two-lane geometries. Even the very important bypasses like those in Kollam and Alappuzha for which land acquisition was completed over than 10 years back, it has not been possible to get approvals for start of construction, essentially on account of the limitations of the allocation for National Highway development.

(1)	(2)	(3)	(4)
			With the introduction of the National Highway Development Programme, through the agency of National Highway Authority of India (NHAI) the funding levels have been stepped up considerably. These are however limited to only those stretched which are taken over by NHAI. In the case of Kerala, except for length of 65 km taken up under NHDP, there is no other financing arrangement for the remaining length of National Highway Improvement programme except with the small average allocation of Rs. 75 crores in a year. The Main Central road (MC road) IS a number one State Highway of Kerala State. Among the various corridors selected through a rigorous process based on specific parameters linked with volume-capacity ratio, importance of connectivity etc. the

entire stretch of Main Central road figured, with a high economic internal rate of return in the feasibility report prepared for the World Bank assisted road project, KSTP.

In view of the above facts it was very unlikely that funding would come from MORTH for improving it to a scale as being done under KSTP. The consequent potential lack of access to any resources. for the highly needed geometric improvement of the MC road it was decided in consultation with MORTH that even though the section of MC road from Kottarakkara to Kottayam was converted as part of National Highway by the time the World Bank project have been approved by the Bank, that the work be executed under this project. There is a very valid reason for taking up the project which otherwise would not improve State Highway No.1 for several years and that would be a great economic

(1)	(2)	(3)	(4)
			loss to the State. The view of the audit that Rs. 75.28 crores constitutes an unwanted charge on the Project is not correct.
		Exorbitant rate for an item of work The PMT arranged the up-gradation of the State Highways for a length of 78.380 km in November 2002, through a firm for a contract price of Rs. 140.50 crore. As there was no provision in the contract for filling pot holes and for patch works to the existing road surface, these works were arranged as supplementary/varied items. According to the 'variation order', the rate approved for filling pot holes and patching of existing surface (quantity 66,450 square meter) was Rs. 301/sq.meter. Scrutiny revealed that in the case of these other road maintenance contracts, the rate admitted for during these work was between Rs. 180 and Rs.203/sq.metre. Assuming the rate admissible as Rs. 203/sq.metre, the excess allowed on these varied items resulted in extra commitment of Rs. 65 lakhs.	The BOQ under up-gradation works does not include the item patchwork repairs and Pothole repairs of the Project road. This item was inevitable since the existing road was damaged due to heavy monsoon. Every year due to importance of Sabarimala pilgrimage such urgent maintenance works were required as per the direction of the Hon'ble High Court. The above mentioned work was carried out by the upgradation contractor as a variation item. As per the condition of contract (FIDIC), the rates for variation items have to be approved by the Engineer "the Supervision Consultant". The rate approved for the above item was Rs.301/m^2. The Engineer had clarified

that the rate arrived was based on the analysis of rates considering the overheads and profit and limited time, to carry out the works. The overhead charges of a major contractor under ICB are normally higher than that of minor contractor engaged in patchwork under maintenance contracts. The reference in this paragraph is to a variation order involving a i new item viz. carrying out of maintenance works; such as, filing potholes and patch works on the road stretch handed to the contractor for upgradation work. Elements of cost of variation items are built up based on corresponding items discernible within the agreed contract and this also influenced by the overheads that form part of the main contract. Hence a comparison of rates between rates obtained in the RMC packages and that in upgradation packages is not correct.

(1)	(2)	(3)	(4)
			The item mentioned above was not included in the original estimate since we cannot quantify the pothole work in the estimate stage. Further, if this item is included with some anticipated quantities, the Contractor will quote very high rates resulting in increase in over all project cost.
		Mobilisation advance *Undue advantage to contractors due to postponement of recovery of advance* Conditions of contracts relating to up-gradation of the State Highways guaranteed payment of interest free advance to contract agencies subject to a maximum amount equivalent to 15 per cent of contract rice. Conditions also stipulated that recovery of mobilisation advance should commence after certification of 30 percent of contract price or nine months after payment of first installment of advance, whichever period concludes earlier. The contracts in question did not, however, provide for recovery of interest on belated adjustment of advances. Between December 2002 and May 2003, the PMT paid an aggregate amount of Rs. 40.61 crore as mobilization advance to three contractor firms	The upgradation part of the KSTP involves very major works involving land acquisition and shifting of utilities of a substantial nature. Even with the preparedness for meeting with the land acquisition with speed that the State Government had to put in position even by a resort to amendments to Kerala Land Acquisition Act, initially land acquisition and shifting of Utilities with a number of difficulties and it was not possible to hand continuous stretches of land for work execution. In such circum-stances in order to enable the

to which contracts for upgradation of the State Highways for a length of 254.74 km had been awarded in November 2002. The PMT concluded the contract agreement before ensuring availability of encumbrance free land and removing the utilities from the alignment of the road. There was also delay in obtaining clearance from respective authorities for quarries and installation of equipment required for the work. As a consequence of these, the contract agencies failed to achieve prescribed milestones in execution, resulting in non-recovery of mobilisation advance at appropriate time. Therefore, on the basis of the recommendations of the PMT, the Steering Committee, monitoring the Project implementation resolved (February 2004) to amend the contract condition, making it obligatory to commence recovery of mobilisation advance only after completion of 30 per cent of the work.

This decision, evidently, helped the contractors to retain the amount without paying interest for a very long duration. Thus, the recovery of mobilisation advance of Rs. 40.61 crore, due to commence on various dates between September and December 2003, was pending as of August 2004. Assuming the interest rate as 10 per cent per annum, the contractors' derived unintended benefit to the tune of Rs. 3.33 crore by way of interest on funds not rapid to the Government.

contractor to work more intensely on the stretches made available to the contractor and to get better level of overall progress of work, withholding of recovery of mobilization advance for a specified period was decided upon. This decision was taken by way of "pump priming" i.e. to provide short-term liquidity to the contractor who had mobilized for the work before he could take up more stretches in accordance with the progress of land acquisition.

Civil contractors for the up-gradation works- KSTP-I, III & IV have been given mobilization advance of 10% of the contract amount. According to the contract agreement, recovery of advance is to be made when the payment reaches 30% of contract amount or after 9 months whichever is earlier vide clause 60.7 of GCC and appendix to bid. Continuous monitoring of construction work done, at the KSTP/Government level showed that the contractor's have

(1)	(2)	(3)	(4)
		The PMT maintained (September 2004) that posponement or recovery of moblilisation advance was done in the best interests of the project and that it will explore the possibilities of imposing interest, in future, on advances not recovered within the specified time frame.	not been able to achieve the prescribed volume of work to meet the conditions in the agreement. The reasons include bad weather conditions, delay in shifting of utilities, non-availability of encumbrance free land, delay in getting the required statutory clearances for quarry and installation of equipment etc. Despite several measures taken by the KSTP to improve the pace of work, they have not been able to achieve the target proposed in the approved work programme. It was found that in the present condition, the contractors might not be in a position to achieve the prescribed milestones in their work programme. In view of the fact that the available working season is very short and taking into account all aspects of the work, it was decided to relax on of the conditions for recovery of mobilization advance and to commence recovery of mobilization

Liquidated damages

Non-recovery of liquidated damages

Provisions made in 13 contract packages arranged for road maintenance demanded levy of liquidated damages at specified rate in case of failure of contract agencies to complete the work on dates specified in the agreements. On account of the delay in completing the works in time, the liability fixed on 11 contractors towards liquidated damages was Rs. 5.93 crore. The amount recovered from these contractors as of August 2005 was only Rs. 1.17 crore leaving Rs. 4.76 crore still to be recovered.

advance only after 30% of the work has been completed. This decision was taken on 21-2-2004 in the interest of the work by the State level Steering Committee chaired by the Chief Secretary with senior Secretaries on this matter.

Now all the KSTP upgradation packages are much progressed recovery of mobilization advance is almost completed.

KSTP is imposing liquidated damages for not achieving milestone one and two in case of maintenance contracts. LD is computed based on the amounts given in the contract data, which form part of the agreement. However in certain cases the work is not completed in all respects within the stipulated time specified in the agreement. In certain other cases all major works were completed except for certain minor works such as fixing of signage etc., which are done after the original completion date. There was also some delay in finalizing the design & drawing for the signage

(1)	(2)	(3)	(4)
			from the road safety angle. Liquidated damages are to be realized only for the period up to actual date of completion starting from the approved original/extended period of contract. The contract provides for extension under certain circumstances. Under the various contracts under reference some were extended on account of specific reasons by which completion of contract within the original contract period would not be possible. Each such case of contract completion beyond the originally stipulated period was considered on its own merits and decided appropriately. Liquidated damages are calculated with reference to the original or extended period of contract and the amounts that are so due have been fully recovered. There has not been any case of short recovery on account of liquidated damages.

ANNEXURE I

SI. No.	*RMC*	*Supervision by*	*Road*	*Distance (KM)*	*Reason for Delay*
(1)	(2)	(3)	(4)	(5)	(6)
1	RMC-04	M/s. ICT	Aluva Kothamangalam	17.00	Rain, additional inclusion of road safety works causes extension.
2	RMC-05	M/s. ICT	Trissur Kodungallur	33.90	Slow progress of work by the contractor. Bituminous work was not started in time LD imposed for delay. Term extended after imposing LD.
3	RMC-06	M/s. ICT	Potta Moonupeedia	20.90	Slow progress of work by the contractor. Bituminous work was not started in time due to his own financial crisis. Construction of extra LD imposed for the prolonged delay.
4	RMC-07	M/s. ICT	Cherpu Tripayar	14.20	Slow progress of work by the contractor, non-availability of bitumen and lorry strike, rain and subsequently included road safety works. LD was imposed for the prolonged delay.

(1)	(2)	(3)	(4)	(5)	(6)
5	RMC-09	M/s. Lea	Sultanbethery-Pulpally	35.00	Prolonged duration of rainy season in Wynad District, objection from forest department against doing improvement of road shoulders in certain stretches, tribal unrest and local disturbances connected with violent 'Muthanga' incident, which disrupted work continuously for over one month through 'hartals' and for facilitating temple festival. Forcible stoppage of work by local people demanding increase in road with and nation wide strike also delayed the completion of the work. Hence extended period of completion.
6	RMC-11	M/s. Lea	Narukkara-State Boarder	40.00	Continuous rain in June till 2003, nation wide strike by Road Transport Fleet Owners, Non-availability of bitumen for 15 days in refineries and loss of 16 days due to agitation by local people raising from objections against the work.
7	RMC-12	M/s. Lea	Quilandy-Tamarasserry	29.30	Delay due to rain