CHAPTER IV

WORKS EXPENDITURE

SECTION – A
AUDIT REVIEW

4.1 Integrated Audit including Manpower Management of Highways Department

Summary Highlights

The Highways Department failed to mobilise its resources adequately and allocate funds based on priority. Provision of funds was made without assessing requirement from field formations. The utilisation of road cutting charges for departmental expenditure and the misuse of Transfer Entry procedure to accommodate the excess expenditure over Budget are indicative of absence of financial discipline. Acceptance of tender without proper evaluation rendered the tender system ineffective. The procedure of appointing consultants to finalise the contract, gives scope for collusion and malpractice. Defective planning, designing and execution resulted in blocking of funds and wasteful expenditure. Quality of works and maintenance works did not enjoy priority. Failure to surrender the staff on completion of project and appointment of consultants for Project management resulted in idle work force.

- During 1999-2002, Rs 2641.69 crore was provided in the Budget but the Department spent only Rs 2077.46 crore. The savings were mainly due to deficiencies in budgeting .

(Paragraphs 4.1.4 and 4.1.4.2)

- Rupees 84.84 crore received towards road cut restoration charges from service departments were appropriated as extra budgetary fund. This vitiated Legislative control over Budget.

(Paragraph 4.1.4.1)

- Rural Roads Scheme was funded with borrowed money, while the funds provided by Government of India for the same objective remained unutilised. The State resources were depleted by Rs 133.08 crore and cast avoidable interest liability of Rs 14.37 crore.

(Paragraph 4.1.5.1)

- Due to poor budgetary control, there was a large scale misuse of Letter of Credit and wrong booking of expenditure to schemes with surplus funds.

(Paragraph 4.1.5.3)

- Rupees 110.13 crore due from various agencies remained unrecovered. Toll fee of Rs 77.55 crore was not levied in 112 bridges.

(Paragraph 4.1.5.5)

- Rupees 119.23 crore were spent injudiciously due to poor planning and non-adherence to prescribed specifications for designing roads and bridges.

(Paragraphs 4.1.6.1 and 4.1.6.2)

- On turnkey projects, both consultants and contractors were engaged for the same purpose resulting in avoidable expenditure of Rs 2.22 crore. Besides, failure to estimate the cost of alternative design led to unintended benefit of Rs 14.77 crore to the contractors.

(Paragraphs 4.1.6.3.1(ii), 4.1.6.3.2(ii)and (iii))

- The consultancy work for Detailed Engineering Design for 11 Byepasses was included under two packages resulting in overpayment of Rs 7.41 crore. Besides the Project Director paid Rs 1.12 crore to the consultants over and above the ceilings fixed in the contract.

(Paragraph 4.1.6.4.1)

- Sufficient funds were not provided for maintenance of roads; yet Rs 51.32 crore provided for maintenance was diverted.

(Paragraph 4.1.6.5 (i),(ii) and (iii))

- There was excess establishment expenditure of Rs 25.95 crore due to formation of divisions in excess of norms and excess employment of Gang Mazdoors.

(Paragraph 4.1.9.1)

4.1.1 Introduction

Tamil Nadu has 1,50,647 Kilometres (km) of road, comprising Government roads (60,628 km) and Village and Project roads (90,019 km). To administer the Government roads, the Highways Department implemented 46 schemes. The expenditure on National Highways (NH) works are incurred under Suspense Account and got reimbursed from Government of India (GOI).

4.1.2 Organisational set up

The Department has 9 separate wings[1] (excluding NH wing), of which 8 are headed by Chief Engineers (CE), and one by a Project Director. There are 17 Circles headed by a Superintending Engineer (SE) each and 77 divisions

[1] General, Rural Roads, NABARD, Project I, Project II, Mechanical, Design and Investigation, Director, Highways Research Station and Project Director, Tamil Nadu Road Sector Project.

headed by a Divisional Engineer (DE) each and three workshops. The Secretary, Highways Department is the administrative head.

4.1.3 Audit Coverage

The records of Highways Department at the Secretariat, Offices of 8 CEs and one Project Director, 10 Circles, 30 Divisions and two workshops were test-checked during February to May 2002 and the significant points noticed on the administration of Government roads owned by the State for the period 1999-2002 are discussed below:

4.1.4 Budget Management

Only Rs 2077.46 crore was spent out of Rs 2641.69 crore provided in the Budget during 1999-2002.

Against Rs 2641.69 crore provided in the Budgets under Revenue and Capital Accounts during 1999-2002, Rs 2077.46 crore were spent. In addition, Rs 1061.44 crore were received from service departments and nodal agencies during 1999-2002 as deposits for executing works and, of this, Rs 1011.46 crore were spent. The year-wise details are as under:

(Rupees in crore)

Year	Government Grants						8443- Civil Deposits	
	Revenue Account			Capital Account				
	Budget Provision	Expenditure	Excess (+)/ Savings (-)	Budget Provision	Expenditure	Savings (-)	Receipt	Expenditure
1999-2000	407.76	413.31	(+) 5.55	463.83	358.14	(-)105.62	338.29	228.14
2000-2001	355.94	353.14	(-) 2.80	471.49	383.26	(-)88.23	434.51	453.14
2001-2002	448.00	309.80	(-) 138.20	494.67	259.74	(-)234.93	288.64	330.18
TOTAL	**1211.70**	**1076.25**	**(-)135.45**	**1429.99**	**1001.21**	**(-)428.78**	**1061.44**	**1011.46**

The reasons for excess and savings in Government Grants were discussed in the Appropriation Accounts of respective years and the deficiencies in budgeting by Highways Department had been discussed in Para 2.4.2 of the Report of the Comptroller and Auditor General of India for the year ended March 2001. The following additional observations are made.

4.1.4.1 Diversion of road cut restoration charges

Rs 84.84 crore received from service departments towards road cut restoration charges were utilised by the divisions for meeting expenditure on other schemes.

According to Codal provisions, all non-Government works shall be treated as deposit works. The divisions are required to incur expenditure from the deposits by obtaining necessary Letter of Credit (LOC) and restrict the expenditure within the deposit amount. As the road cut restoration works are executed on Government assets, they are to be funded through Budget and the road cut restoration charges received from service departments are to be treated as revenue. Test-check revealed that the road cut restoration charges including centage charges collected by the divisions were classified as 'Deposits', treating the works as deposit works. However, the amount so received was not utilised for the intended purpose and was misused as extra budgetary provision for incurring expenditure on works not provided for in the budget. This vitiated the Legislative control over Budget. It was seen that Rs 88.61 crore was received by 29 divisions towards road cut restoration charges and Rs 84.84 crore was utilised for meeting expenditure on other schemes during 1999-2002.

4.1.4.2 Deficiencies in Budgeting

Owing to deficient budgeting, there were huge excesses/savings under various heads of account.

Test-check of provision of funds revealed poor budgeting. Illustrative cases are furnished below:

(i) Government provided funds during 1999-2000, in excess of the amount sought for by implementing divisions in respect of 4 schemes,[2] resulting in savings of Rs 24.61 crore. Similarly, though the reduction of administrative sanction from Rs 1.50 crore to Rs 0.40 crore was under consideration by the Government, Rs 1.50 crore was provided through 'Supplementary Grant' during December 1999 for the scheme 'District and other roads under special component' resulting in surrender of Rs 1.10 crore in March 2000.

(ii) The CE sought (January 2000) Rs 2.50 crore in the Final Modified Appropriation (FMA) even before the land acquisition proceedings for the work "Byepass to Tiruvattipuram" reached the award passing stage and the amount was surrendered in March 2000. Similarly, DE, Cuddalore sought Rs 1 crore in Revised Estimate for 1998-99 and Rs 6.25 crore in Budget Estimate for 1999-2000 towards construction of a high level bridge at Singarathope for which Rs 7.25 crore was sanctioned. The work with a completion period of two years was taken up only in April 1999 and was held up due to revision of design. Consequently, only Rs 0.35 crore was spent during 1999-2000 and the balance was surrendered/reappropriated. Provision of entire funds in one year without considering the completion period and time required for finalisation of tender resulted in huge savings.

(iii) In respect of the scheme 'Improvement Programme to Accident Prone Spots', Rs 88.01 lakh was incurred as of December 1999 by 22 divisions against a provision of Rs 40.95 lakh. Though the divisions sent proposals for

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[2] Improvement of road works under Hill Area Development Programme; Improvements to Rural Roads with loan assistance from National Agricultural Bank for Rural Development (NABARD); Improvements to Bus Routes with loan assistance from NABARD; Improvements to Rural Roads with loan assistance from NABARD under Special Component Plan.

Rs 1.52 crore in FMA, Government provided only Rs 11.80 lakh as per CE's recommendation. Consequently, 13 divisions transferred the expenditure already incurred under the scheme to other schemes. Yet, there was an excess of Rs 21.97 lakh under this scheme.

(iv) Rupees 58.55 lakh for construction of an alternative road to Siddharkoil was wrongly provided under Revenue head instead of under Capital head, resulting in understatement of assets.

4.1.4.3 Undischarged liability

Though funds are to be provided in the budget to clear committed liabilities, it was seen in test-check of five divisions[3] that 193 works valuing Rs 8.06 crore executed during 1998-2002[4] were not paid for as of March 2002 for want of budget provision.

4.1.5 Finance and Accounting

4.1.5.1 Avoidable borrowing

Failure to utilise the funds received from GOI resulted in avoidable expenditure of Rs 133.08 crore and interest liability of Rs 14.37 crore on borrowed funds.

The Rural Roads (RR) Wing executes works for providing connectivity to rural habitations. The expenditure incurred is reimbursed to the extent of 90 *per cent* from NABARD at 12 *per cent* interest. In August 2000, GOI launched a centrally sponsored scheme Pradhan Mantri Gram Sadak Yojana (PMGSY) wherein it was proposed to provide connectivity to all rural habitations by the year 2007 and the scheme was implemented by the Engineering Wing of Rural Development (RD) Department. GOI released Rs 269.30 crore during 2000-2002 to RD Department under PMGSY, of which the Department utilised only Rs 38.16 crore upto May 2002. During this period, the RR wing spent Rs 133.08 crore for road connectivity in rural areas. Had the entire expenditure been met from GOI funds, the State would have saved Rs 133.08 crore of its resources and also the interest liability of Rs 14.37 crore. As such, taking up rural road connectivity works under State Plan and borrowing funds for this purpose was not prudent.

4.1.5.2 Avoidable expenditure

The Department commenced eight works on roads which were converted as NH during February 1998 to January 1999 and spent Rs 12.70 crore during February to December 1999. As the expenditure on NH works was to be

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3 Gopichettipalayam, Madurai, Paramakudi, Pollachi and Sivaganga.

4 1998-99: Rs 11.18 lakh; 1999-2000: Rs 93.91 lakh; 2000-2001: Rs 226.02 lakh and 2001-2002: Rs 474.59 lakh.

borne by GOI, the funds spent could have been better utilised on improving State owned roads.

4.1.5.3 Misuse of Letter of Credit and allocations

Expenditure relating to one scheme was transferred/booked under another scheme.

Finance Department issues LOC to the divisions based on the allocation of budget by the CE. It was seen that the divisions had utilised the LOC meant for one scheme for another over and above the budget provision and sought for regularisation in the FMA proposals. In cases where the required funds were not allotted in FMA, the divisions resorted to transfer of expenditure to "8443-Civil Deposits" and accounted the expenditure under 'Deposit works'. There were also cases wherein the expenditure so transferred was retransferred to schemes during subsequent years. The divisions also resorted to misutilisation of funds from under 'Deposit works' for expenditure on maintenance works. Thus, the divisions deliberately misused the LOCs. Further, the system of proposing transfer entries for rectification of misclassification was actually used for misclassifying expenditure. These misuses are aptly illustrated in the following cases.

(i) The DE, Saidapet booked Rs 3.22 crore incurred on materials purchased for non-plan works to four plan works during 1988-99. When one such plan work 'Construction of Railway Under Bridge (RUB) near St. Thomas Mount Railway Station' was taken up in January 2000 after completion of land acquisition, it was found that Rs 2.12 crore had already been booked under the work, of which, only Rs 58 lakh was actually incurred towards advance payment to Railways and land acquisition officers. The DE sought (February 2000) for provision of funds under non-plan heads to transfer the balance amount of Rs 1.54 crore and the transaction remained unadjusted as of March 2002.

(ii) The CE (General), authorised eight divisions to utilise the fund provided under the new scheme 'Mechanised relaying of roads' during 1999-2001 to settle the undischarged liability on account of 'Permanent restoration of flood damaged roads' executed during 1996-97. The divisions incurred Rs 27.30 crore to settle old bills. Thus, the bills relating to one scheme were wrongly booked under another scheme.

(iii) The DE, Cuddalore could not utilise the funds provided for the work of 'Strengthening of the approach road to the Pennar Refinery Project' and booked the cost of 1057 MT of bitumen amounting to Rs 95.99 lakh by transfer from other works in March 2001 in order to utilise the budget provision under the scheme. To an audit query, the DE stated (September 2001) that the amount would be regularised in the subsequent year by transfer to concerned works.

(iv) Based on the CE's instruction (September 1998, December 1998 and January 1999), the DE, Dindigul spent Rs 2.66 crore on road improvement works, although no funds had been allotted. The pending bills were paid out of road cut restoration charges during 1998-2000.

(v) The DE, Project I, Alandur transferred Rs 1.41 crore incurred under the work of 'Widening Northern Extension of Inner Ring Road' to 'Construction of RUB at St. Thomas Mount' (Rs 1.07 crore) and 'Widening Southern Sector of Inner Ring Road' (Rs 0.34 crore) in March 2001 for want of funds. The amounts were retransferred in July 2001 to the work 'Widening Northern Extension of Inner Ring Road'.

(vi) A review of the deposit accounts relating to 14 divisions revealed minus balance of Rs 5.71 crore, Rs 4.27 crore and Rs 52.67 crore at the end of 1998-99, 1999-2000 and 2000-2001 respectively indicating expenditure in excess of deposits. It was seen that such minus balances persisted year after year in the following three divisions indicating that the divisions continuously incurred expenditure exceeding the deposits.

(Rupees in crore)

Name of the division	**Minus balance as of**		
	March 1999	**March 2000**	**March 2001**
Theni	0.25	0.09	1.19
Tiruvannamalai	0.11	0.90	10.09
Vellore	1.38	0.01	11.70

(vii) According to the codal provisions, the SE/CE could transfer LOC among their subordinate officers. Instead, they permitted settlement of bills relating to a division where there was insufficient LOC by other divisions where there was surplus LOC, and transferred the expenditure. This was irregular.

4.1.5.4 Rush of expenditure

(i) Though the expenditure on land acquisition was to be incurred by the Revenue Department by presenting bills directly to the Treasury and passing on the debit to the divisions through "8658-Suspense Account", the DE, Tiruvannamalai transferred (March 2000) the compensation of Rs 95 lakh payable towards land acquisition to Deposit Head '8443-Civil Deposits' to avoid lapse of grant.

(ii) Rupees 3.44 crore was deposited (March 2000 and 2001) with Revenue Department by DE, Project I, Tiruchirappalli even before publication of notification under Section 4(1) of Land Acquisition Act, in order to show expenditure on works and to draw further instalment of loans from HUDCO.

(iii) As against the requirement of 5 MT of bitumen for two bridge works, DE, Dindigul, paid Rs 25.01 lakh as advance payment for 335 MT of bitumen during March 1999 (Rs 13.02 lakh) and March 2000 (Rs 11.99 lakh) to avoid lapse of grant and transferred the bitumen to other works subsequently.

4.1.5.5 Non-recovery of Government dues

Rupees 110.13 crore remain unrecovered from various agencies.

Test-check revealed that the Department failed to collect the dues from various agencies in time and Rs 110.13 crore remained unrecovered as of June 2002 (details in Appendix XX). No action plan was evolved to collect the Government dues. In addition, the Department had not levied toll in respect of 112 bridges constructed at a cost of Rs 77.55 crore.

4.1.5.6 Non-clearance of Suspense Heads

No effective action has been taken to clear the balances under suspense heads.

(i) Miscellaneous Public Works Advance (MPWA), a Suspense Account which records advance payments, loans, amount recoverable from contractors, etc., was to be cleared by recovery, waiver or transfer. Non-clearance of the balances under this head would result in non-realisation of revenue or understatement of expenditure. However, Rs 24.09 crore were pending clearance as of March 2002. Test-check of 29 divisions revealed a balance of Rs 3.40 crore as of January 2002, of which, Rs 1.95 crore was pending for more than three years. Non-clearance of the balance was attributed to court/vigilance cases, non-recovery of dues from contractors, suppliers, etc. It was seen that many divisions had not maintained break-up details of pending cases. Rupees 4.36 crore recoverable from eight contractors towards extra expenditure incurred on execution of work through other agencies, were not kept under MPWA for watching recovery.

(ii) The system of accounting inter-divisional transactions like transfer of materials, claims for services rendered, etc., under the Suspense Head 'Cash Settlement Suspense Account' has been discontinued by Government in January 1994 itself. The uncleared balance under this head would represent non-accounting of materials received or non-settlement of bills. It was seen that the Accounts Officer (Highways), without obtaining Government orders, had written-off Rs 1.87 crore under this head in October 1994 as the transactions could not be traced. Government orders on the write-off proposal sent in October 1994 were awaited (June 2002).

4.1.6 Programme Management

4.1.6.1 Poor Planning

Avoidable/ unproductive expenditure of Rs 112.44 crore due to poor planning.

The physical performance of the State during the Ninth Five year plan (1997-2002) under construction and maintenance of roads is given in Appendix XXI. The financial performance during this period is given below:

(Rupees in crore)

Year	Annual plan outlay and expenditure		Maintenance			
	Outlay	Expenditure	Funds required as per norms	Funds provided by Central Finance Commission	Budget allotment	Expenditure
1997-1998	372.53	230.40	342.52	297.38	228.00	272.99
1998-1999	492.55	302.55	422.53	317.90	254.00	259.92
1999-2000	571.68	442.49	439.80	336.97	269.58	253.56
2000-2001	809.19	728.35	483.78	363.33	182.64	198.37
2001-2002	578.71	510.85	469.99	381.50	202.82	114.49
TOTAL	**2824.66**	**2214.64**	**2158.62**	**1697.08**	**1137.04**	**1099.33**

It is seen that the total plan outlay for five years was Rs 2824.66 crore against the approved outlay of Rs 1700 crore. Though the Department incurred Rs 2214.64 crore during this period, it did not achieve the physical targets envisaged in the Ninth Plan. It is also seen that as against the provision of Rs 1697.08 crore for maintenance provided by Central Finance Commission, the State had allotted only Rs 1137.04 crore and actually spent Rs 1099.33 crore. Further, though the Ninth Plan envisaged conversion of all State Highways (SH) and Major District Roads (MDR) into double lane, 3056 km of SH (43 *per cent*) and 5671 km of MDR (77 *per cent*) remained as single and intermediate lanes. Test-check revealed that the Department incurred avoidable and wasteful expenditure by way of poor planning, unnecessary widening of roads, wrong selection of works etc. A few illustrative cases are discussed below:

(i) Due to reasons like defective preparation of estimate, avoidable delay in acquisition of land, failure to obtain clearance from Forest Department for executing works in Reserve Forest Area and poor investigation, Rs 76.51 crore spent on 24 bridge works and 4 road works (Appendix XXII) remained unproductive and the objective of taking up the works was not achieved.

(ii) 37 road works which were not contemplated in the schemes were executed incurring an unnecessary expenditure of Rs 5.86 crore (Appendix XXIII).

(iii) In the following cases, the roads were widened without requirement.

Name of the work	Extra expenditure involved (Rupees in crore)	Audit Comment
Widening of Chennai - Mahabalipuram Road from km 13/3-55/46	12.35	Widened from two lane to four lane without taking into consideration the Passenger Car Unit norms prescribed by Indian Roads Congress (IRC) and availability of a parallel East Coast Road.
Widening of Murmalong Bridge-Irumbuliyur Road	3.15	The traffic intensity does not require conversion from two lane to four lane.
Widening of five roads* in rural areas	1.96	The projected traffic intensity for a design life of 10 years did not warrant conversion from single lane to intermediate lane.
Total	**17.46**	

* Kattabetta-Idukatty road, Devakottai-Vattanam road, Uthirakosamangai-Sevalpatti road, Sayarpuram-Palayakayal road, Srivaikundam-Pudukottai road

(iv) According to IRC Specifications, the roads in rural areas with 7.5 m width and 3.5 m carriageway width require only 8.5m width bridges without footpath. 13 bridges were constructed with 12m width with footpath, involving additional expenditure of Rs 8.92 crore.

(v) An existing two-lane RUB connecting two-lane roads on either side could not cater to the traffic resulting in congestion. After Government sanction, the two-lane road on one side was widened into 4 lanes and another two-lane RUB constructed. The work was completed at a cost of Rs 3.69 crore in February 2002. It was, however, seen that the traffic congestion had not been eased as the two-lane road on the other side had not been widened. This road could be widened only by acquiring additional area which was already built up. Thus, despite spending Rs 3.69 crore, the traffic congestion had not eased.

4.1.6.2 Defective designing

Defective designing of roads and bridges resulted in extra commitment/ expenditure of Rs 6.79 crore.

The CE (Designs and Investigation) is responsible for designing the bridges. It was seen that the cost of departmental designs for bridges was much higher than the alternative designs furnished by the contractors indicating that the Department had not evolved any economic design. Test-check revealed the following:

(i) IRC specifications provided for designing bridges for waterways based on the Designed Discharges and specified the formula for arriving at Designed Discharges and Effective Linear Waterway (ELW)[5]. The consultants appointed under the scheme "Construction of 106 bridges" arrived at the Designed Discharge and calculated the ELW to fix the length of the bridge. This value was inflated resulting in construction of bridges of greater length than required. The excess expenditure in respect of seven bridges, where the consultants inflated ELW, worked out to Rs 1.77 crore (Appendix XXIV).

(ii) The Department adopted higher specifications than that required as per the norms of IRC and Ministry of Road Transport and Highways (MORTH). This resulted in extra expenditure of Rs 5.02 crore in respect of 19 works (Appendix XXV).

4.1.6.3 Tendering System

4.1.6.3.1 Deficiencies in tendering

(i) Though the Law of Contract stipulated that the contract emerged on the acceptance of the bid, the bid documents did not provide for relief by way of recovery of extra cost if there was withdrawal of tender after acceptance. Test-check revealed that in respect of 15 contracts, where the lowest bidders had not turned up for signing agreement after communication of acceptance of tender, the works were awarded on retender at an extra cost of Rs 1.38 crore.

Unnecessary engagement of consultants resulted in avoidable expenditure of Rs 2.22 crore.

(ii) The guidelines issued by Government (March 1992) for Turnkey Contract stipulate entrustment in toto to a single and prime contractor, the entire process of investigation, project formulation, planning, design, construction, erection, testing and commissioning. The scheme of 'Construction of 106 bridges' grouped into 17 packages was executed on Turnkey basis. The CE initially prepared pre-feasibility report by engaging consultants, which contained all data of existing structure, location and basic details for evolving design. The Department employed another set of consultants for preparation of bid documents by conducting field investigation (Part A) and for supervision of the work (Part B). However, the work of conducting field investigation for evolving designs was also included in the works contract. As the tenderer for works contract was responsible for evolving design, the consultancy service for Part A was redundant and payment of Rs 2.22 crore for this service was avoidable.

(iii) The poor performance of Tamil Nadu State Construction Corporation Limited (TNSCC), was commented in earlier reports of Comptroller and

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[5] Length of the waterway at highest flood level reduced by obstructions like piers, etc.

Auditor General of India[6]. Test-check revealed that works executed by the TNSCC in January 1994, February 1999 and April 1999 were foreclosed in June 1998, July 2000 and December 2000 due to inordinate delay in completion and Rs 38.77 lakh paid as mobilisation advance was not recovered as of May 2002. Five more works entrusted during March 1997 to October 1997 were not completed even after a delay of 38 to 46 months and Rs 2.60 crore spent on these works remained unproductive.

4.1.6.3.2 Finalisation of tenders

(i) Test-check revealed that in respect of 14 works, tenders were recalled on the ground that the lowest tender was unworkable. Rejection of original tenders without considering the next lowest tender resulted in extra expenditure of Rs 41.30 lakh.

Failure to verify the reasonableness of the cost of alternative design led to unintended benefit of Rs 3.71 crore to contractors.

(ii) The codal provisions stipulate that the Department should obtain the detailed drawings, designs and estimates in cases where the bidder submits quotation for alternative design for major bridge works. The CE accepted the alternative design submitted by two tenderers in respect of the three bridges[7] by comparing them with the estimated cost for departmental design, without obtaining the detailed drawings and designs to ascertain the reasonableness of cost of the alternative design. The works were completed and the DEs recorded measurements. The contractors were paid Rs 18.93 crore for the three works. Audit observed that the value of work executed by the contractors was only Rs 15.22 crore based on the actual quantity executed and the relevant rates quoted by them. The failure of the CE in not obtaining the estimates for the alternative design resulted in unintended benefit of Rs 3.71 crore to the contractors. The case deserves further investigation by the Department.

Unintended benefit of Rs 11.06 crore to contractors due to inflation of Bill of Quantities.

(iii) Similarly, for the scheme of 'Construction of 106 bridges', executed on 'Turnkey Contract', the bidders were requested to furnish the Bill of Quantities (BOQs). The CE adopted the BOQ of the lowest tenderer, without verifying the correctness of the quantities, for preparation of estimates. This wrong estimate was further inflated by 9 to 20 *per cent* for miscellaneous expenses by the CE and then compared with the tender received for the design. It was seen that though there was no deviation in specifications while executing the works, the actual quantity executed for various items of work was less compared to the BOQ based on which the tender was accepted. Test-check of two packages comprising 14 bridge works disclosed that there was an

6 Para 3.14.14 of Audit Report 1995-96; Para 4.3 and 4.4 of Audit Report 1996-97.

7 Construction of ROB in NH 45 at Tindivanam, Construction of ROB in New Jail Road at Madurai, Construction of ROB at km 0/6 – 8 of Virudhunagar – Aruppukkottai road.

unintended benefit of Rs 11.06 crore to the contractors due to inflation of BOQ. This calls for investigation by the Department.

(iv) While submitting the bid for alternative design for the work of construction of high level bridge across Tambirabarani river at Tirunelveli, the lowest tenderer quoted Rs 3.15 crore by adopting less founding depth for abutment and piers than that mentioned in the departmental design and demanded Rs 17.27 lakh extra for adopting the foundation level indicated in the departmental design. The Commissionerate of Tender wrongly rejected the bid as conditional and awarded the tender for Rs 3.99 crore to another contractor resulting in extra cost of Rs 0.67 crore.

(v) Government fixed (September 1998) a time limit for processing of tenders at various levels. Further, the bid documents for the scheme ‘Construction of 106 bridges’ provided for adjustment of contract price for increase/decrease in rates of labour, material and fuel from the last date of submission of tender. Accordingly, any delay in finalisation of tender would result in payment of escalation charges. Test-check of 17 packages of the bridge work revealed delay in finalisation of tenders in 5 packages beyond the time limit prescribed, resulting in payment of avoidable escalation charges of Rs 1.33 crore.

4.1.6.4 Execution of works

4.1.6.4.1 Government identified 1280 km of road under Tamil Nadu Road Sector Project (TNRSP) for improving, upgrading and strengthening and selected M/s. Kinhill Engineering Private Limited, Australia from the list of consultants furnished by World Bank for the work of Conducting Feasibility study and Detailed Engineering Design (Design). The Project Director entered into an agreement with the firm for Phase I (375 km of road) in May 1997 and extended it to Phase IA and Phase IB by variation orders indicating cost involved for the additional works. The works in Phase I, IA and IB have been completed and Rs 22.84 crore was paid to the Consultant (March 2002).

Scrutiny of the records revealed the following:

Inclusion of the same consultancy work in two packages led to overpayment of Rs 7.41 crore.

(i) Though the Consultant agreed to prepare design for 375 km of road and survey and design for 11 Byepasses for Rs 6.95 crore under Phase IA, only the work of designing 375 km of road and conducting traffic survey for 11 Byepasses were mentioned in the agreement thereby omitting the designing of Byepasses. Rupees 6.95 crore were paid for the abridged work. The work of designing 11 Byepasses was again included under Phase IB wherein the designing of 87 km of road and 12 Byepasses were entrusted to the contractor and Rs 7.41 crore (proportionate cost) was paid for designing the 11

Byepasses. When the overpayment of Rs 7.41 crore was pointed out, the Project Director contended (June 2002) that preparation of Design for 11 Byepasses was not covered in Phase IA. The matter needs investigation and responsibility should be fixed for reducing the scope of Phase IA without any corresponding reduction in contractual cost.

Non-adherence to the cost ceiling fixed in the agreement resulted in overpayment of Rs 1.12 crore.

(ii) The agreement entered into with the Consultant for Phase I fixed overall cost ceiling for payment in foreign and local currencies and also the ceiling for each item of work that are to be paid either with or without supporting documents. It was noticed in audit that the payments for Phase I in local currency exceeded the overall ceiling fixed in the agreement by Rs 44.77 lakh. Detailed examination revealed that the claims for items for which supporting documents were to be produced were less than the ceiling prescribed and conversely the claims for items for which no such document were to be insisted exceeded the ceiling prescribed. Such excess claim for 12 items worked out to Rs 91.14 lakh (Appendix XXVI).

It was further seen that though there was no amendment or discussion regarding overall and individual ceilings, a foot note was included in the Appendix to the agreement to the effect that the payment might be restricted to overall limit ignoring the individual ceilings in the variation orders for Phase IA and IB. The inclusion of this relaxation clause, without any amendment to original contract resulted in overpayment of Rs 20.42 lakh in Phase IA (Appendix XXVI).

When pointed out, the Project Director contended that the contract provision did not speak about ceiling for individual items. As to the inclusion of foot note in Appendix to the agreement in Phase IA and IB, the Project Director stated that it was not possible to include every item discussed in the negotiation committee meeting in its minutes. According to the Project Director the cost schedule along with the foot note in the Appendix was evaluated by the committee and accepted. These contentions of the Project Director were not tenable as contract agreement provided for ceiling for individual items and inclusion of a foot note which had the effect of nullifying it should have been minuted by the Negotiation Committee. Further, if the negotiation committee had agreed for such a change, the amendment should have been made in the agreement clause and not in the Appendix.

4.1.6.4.2 The Government, in September 1991, instructed to make escalation payments for labour component based on All India Consumer Price Index in respect of Tamil Nadu Urban Development Project works. However, the escalation clause included in the agreements for 'Construction of 106 bridges' mentioned the nearest city index as the basis for escalation instead of

All India Consumer Price Index. This, along with wrong adoption of base month resulted in overpayment of Rs 0.79 crore in four divisions[8].

Failure to recover seigniorage charges of Rs 62.44 lakh resulted in unintended benefit to the contractor

4.1.6.4.3 The agreement for the work of forming Inner Ring Road km 0/0 – 27/2 and construction of high level bridge at km 5/2 at Madurai included payment for the cost of earth and gravel. DE, Project I, Madurai obtained permission from the District Collector for extracting earth and gravel from various Public Works Department tanks. The contractor paid seigniorage fee of Rs 63530 for 5140 cubic metre of earth and gravel but extracted 5.95 lakh cubic metre for which seigniorage fee of Rs 63.08 lakh was payable. The DE failed to recover Rs 62.44 lakh from the bills of the contractor.

4.1.6.5 Maintenance expenditure

Maintenance expenditure was lower than the prescribed norms

Territorial divisions carry out repairs, periodical renewal and special/emergent repair to improve alignment and to repair the badly damaged roads due to flood, etc. As against the maintenance allotment of Rs 1697.08 crore by the Central Finance Commission, Government allotted Rs 1137.04 crore during 1997-2002 and the Department spent Rs 1099.33 crore. The details of funds provided for repairs, periodical renewal and special repairs are given in Appendix XXVII. Test-check revealed the following:

(i) The share of expenditure on material for repairs ranged from 11 to 48 *per cent* only during 1997-2002 against the prescribed norms of 70 *per cent* indicating poor maintenance of roads.

(ii) Rupees 600 crore was required for periodical renewal every year based on the length of road under each category and cost of renewal. However, only Rs 79.81 crore to Rs 166.93 crore were provided for this purpose. With this, periodical renewal could be done only once in 30 years instead of once in 5/6 years as prescribed.

(iii) Out of Rs 220 crore provided by Government for 'Mechanised relaying in SH and MDR', the Department spent only Rs 199.77 crore during 1999-2001. Though the scheme provided for improvement of bad stretches by profile corrective course and surface course, the SEs provided 50 mm Bituminous Macadam (BM) in addition to profile corrective and surface courses on many roads. Besides, widening work was also undertaken. Test-check revealed that in 184 works executed during 1999-2001 in 19 Divisions, Rs 51.32 crore was spent on providing BM layer (Rs 45.83 crore) and widening (Rs 5.49 crore) which could have been used for carrying out special repairs to more roads.

[8] Project II Divisions – Chengalpet, Cuddalore, Salem and Tiruchirapalli.

(iv) Under Rural Roads Scheme, the Department improved the Village roads and maintained them thereafter. Consequent on the formation of Engineering wing in RD Department, the territorial wings stopped the maintenance of village roads from 1996-97 and sent proposals for handing over these roads to the respective local bodies. Government issued orders only in February 2000 that village roads can be handed over to local bodies and Engineering wing of RD Department will maintain them. Delay in issue of orders meant village roads were not maintained during 1996-2000.

4.1.7 Material Management

Major items of material required for the road and bridge works are steel, cement and bitumen. The procedure of purchase of cement from the Tamil Nadu Cement Corporation Limited (TANCEM) was dispensed with from 1998-99 and cement was to be procured from open market by inviting tenders. Government ordered (January 1999) that department supply of steel and cement be made only till the stock was exhausted. Similarly, the procedure of purchasing bitumen by making advance payments to oil companies was also dispensed with in February 2000 and the contractors themselves were to procure bitumen. Test-check revealed the following:

Extra expenditure of Rs 1.26 crore on purchase of cement

(i) 38 divisions purchased 34,179 MT of cement from TANCEM during 1998-99 at rates ranging from Rs 2700 to Rs 3160 per MT without inviting tenders. Failure to follow the Government instructions resulted in extra expenditure[9] of Rs 1.26 crore.

(ii) Steel valuing Rs 33.91 lakh was kept idle from January 1999 as Stores and Purchase division failed to supply available stock before allowing the contractors to procure it from market.

(iii) Advance payments of Rs 4.04 crore made for supply of steel, cement and bitumen were pending recovery as of March 2002. Of this, Rs 3.66 crore were pending from oil companies (Rs 1.50 crore for more than 3 years). The accumulation was mainly due to making advance payments at the fag end of the year without requirement and without adjusting earlier advances and the slow recovery was due to non-reconciliation of accounts with oil companies.

4.1.8 Quality control

MORTH and IRC specifications prescribed the quality control to be exercised during the execution of work and prescribed the frequency for each type of construction. There was no separate quality control wing in the Department

9 Based on price at which cement was purchased by Tamil Nadu Water Supply and Drainage Board in open market during 1998-99.

and only twelve quality control sub-divisions (nine under NH wing) and two laboratories were functioning. The quality of works was ensured only by the executing divisions and surprise checks were conducted by three quality control sub-divisions.

In October 1999, Government ordered that all quality control staff were to be brought under the control of the Director, Highways Research Station (HRS) and all original works were to be subject to quality control. However, the Director re-organised the work allocation among the sub-divisions only in October 2001. He issued a circular to all DEs (January 2002) that ensuring the quality of works was their responsibility. In February 2002, the Director reported to Government that only surprise test-check for works under execution and completed works were conducted by the Quality Control Wing for want of funds, infrastructure and manpower. The required infrastructure has not been created and the objective of checking the quality of all original works by the Director has not been achieved.

4.1.9 Manpower Management

The Department has a sanctioned strength of 6706 (excluding NH Wing) comprising of 9 CEs, 21 SEs, 98 DEs, and 6578 technical and administrative staff. In addition, there are 11911 Gang Mazdoors and 1801 Road Inspectors employed for maintenance of roads as of March 2002. Year-wise manpower employment with establishment and works expenditure is given in Appendix XXVIII.

4.1.9.1 Excess deployment of manpower

3 to 11 divisions were in existence in excess of norms

(i) The works expenditure norm of Rs 3.50 crore per division fixed in February 1993 was not revised. Test-check of 40 divisions revealed that the establishment expenditure constituted 18 to 32 *per cent* of works expenditure during 1997-2002. Taking into account the norm arrived at in audit based on the annual average Consumer Price Index for industrial workers and All India Wholesale Price Index for commodities, there were excess number of divisions in four wings (General, Project I, Project II and RR) resulting in excess establishment expenditure of Rs 25.28 crore. The details are given below :

(Amount – Rupees in crore)

Year	Number of divisions	Works expenditure	Establishment expenditure	Percentage of establishment expenditure to works expenditure	Works expenditure norm arrived at by audit	Number of divisions required	Number of excess divisions	Excess establishment expenditure
1997-1998	16	41.70	8.85	21	4.84	9	7	3.87
1998-1999	20	65.83	12.58	19	5.17	13	7	4.40
1999-2000	12	47.00	8.68	18	5.37	9	3	2.17
2000-2001	18	67.12	14.72	22	5.69	12	6	4.91
2001-2002	24	67.04	21.66	32	5.95	13	11	9.93
Total		**288.69**	**66.49**	**23**				**25.28**

Even adopting the norm of Rs 3.50 crore per division, the divisions were in excess by 4, 1 and 5 in 1997-98, 1998-99 and 2001-2002 respectively and the excess expenditure for these three years would be Rs 7.36 crore.

(ii) The requirement of Gang Mazdoors as per the norms fixed by Central Finance Commission in 1990 was 12980 as of March 1997. However, the CE arrived at the requirement as 14872 based on the norms fixed by Government in 1987 and obtained (May 1997) Government orders to recruit 5575 Gang Mazdoors to fill the vacancies. The recruitment resulted in excess employment of Gang Mazdoors during 1997-98 (245) and 1999-2000 (62) resulting in avoidable expenditure of Rs 66.74 lakh on wages.

4.1.9.2 Poor manpower management

Employment of excess manpower than required

(i) The RR wing (strength 1149) executes works not connected with Government roads and with the launching of PMGSY, the wing became irrelevant. The Second State Finance Commission has also recommended (December 2001) disbandment of this wing. The NABARD wing (strength : 162) has no circle or division and attends to administrative work like raising loan, sanctioning estimates prepared by other wings and finalising tenders floated by other wings. The Project II wing (strength: 471) was formed with 328 posts, which have been rendered surplus due to completion of two schemes[10]. It has no work except making payments to the contractors, as consultants look after all other responsibilities. Similarly, TNRSP wing (strength: 52) also has no work, as the project was executed by consultants. Thus, these four wings have been redundant.

[10] Tamil Nadu Agricultural Development Project and NH 45 project.

(ii) The work load in the Mechanical Wing with one CE, three DEs, 158 supporting staff and 197 workers was low. The three workshops established for undertaking major repairs of the departmental plants were making huge losses due to idle labour, non-availability of spares for the plants which were purchased before 1987 and huge transportation cost involved in transporting plants from the workshops. Further, the functions of the 'Stores and Purchase' division have declined as Government decided (January 1999) to dispense with the departmental supply of material to works. In March 2002, Board of Engineers recommended winding up the post of CE and three DEs.

Inadequate manpower for Designs and Investigation wing

(iii) In spite of excess deployment of manpower in various wings of the Department as mentioned above, the Designs and Investigation wing was suffering from inadequate manpower and the work load of this wing on all schemes sanctioned by Government was Rs 667.95 crore as against the capacity of Rs 90 crore. It was seen that the Department entrusted the designing of the bridges under "106 bridges" scheme to contractors and the designs wing checked the feasibility of the designs but did not check the estimates prepared by the contractors. It was also seen that though Government ordered to strengthen the quality control set up under Director, HRS (October 1999), the Director pleaded inability (February 2002) to take up the work for want of sanction of quality control sub-divisions in 19 out of 33 territorial divisions.

Thus, the manpower deployment was not compatible with the volume of work and required reorganisation.

4.1.10 Impact assessment

The objective of the Department was to extend and improve the existing roads by strengthening and widening so that they would withstand the increased traffic load and ensure free flow of traffic.

During the period under review, there was no increase in the length of the double lane roads in the State. The huge expenditure incurred on improvement of roads was mainly utilised for strengthening of roads by increasing the thickness of the carriageway, which caters to a higher traffic load, but does not lead to easing congestion to afford free flow of traffic. Several bridges constructed in urban areas were not supplemented by widening of the roads. The increase in the vehicle population of the State from 31.82 lakh in April 1997 to 51.62 lakh in September 2001, the steady increase in road accidents from 42197 involving 47609 persons in the year 1996 to 48923 involving 62706 persons in the year 2000 and the massive widening works undertaken in NH roads by GOI which would offload greater traffic in SH and MDR were not taken into consideration by the Department while deciding upon the nature of improvement works to be undertaken.

Maintenance of the roads is essential to prevent severe damage to existing layers necessitating replacement at high cost. However, least priority was given to maintenance work as the funds allocated for maintenance were not sufficient to provide for maintenance work even once in its life time of 10 to 15 years. Consequently, improvement works at high cost became inevitable when the roads were completely worn out.

Thus, despite huge expenditure, the Department had not achieved the objective of providing free flow of accident-free traffic and has no plans to meet the future requirements arising out of improved National Highways and increased vehicular traffic.

The above points were referred to Government in August 2002; reply had not been received (December 2002).

SECTION – B

AUDIT PARAGRAPHS

PUBLIC WORKS DEPARTMENT

4.2 Avoidable interest payment due to drawal of loan far in advance of requirement

The Department sought funds for works not fit for taking up/already completed, resulting in drawal of loan far in advance of requirement as well as in avoidable interest/deferment fee amounting to Rs 5.49 crore.

For flood alleviation measures in Chennai Metropolitan Area, Government sanctioned (August 1998) Rs 300 crore with 70 *per cent* loan assistance from Housing and Urban Development Corporation Limited (HUDCO). The project was to be implemented in four packages by Public Works Department (PWD) and Tamil Nadu Slum Clearance Board (TNSCB). Chennai Metropolitan Development Authority (CMDA) was the nodal agency for drawal and disbursement of loan from HUDCO. The records of the project disclosed the following:

(i) CMDA submitted (January 1999) a project report for three packages for Rs 209.56 crore based on the proposal of PWD and TNSCB and obtained loan sanction from HUDCO for Rs 143.78 crore. It was seen that the three packages included schemes* costing Rs 46.71 crore which were not to be taken up or were already completed. On reestimation (April 2000), these schemes were deleted from the project and CMDA requested HUDCO to reduce the loan to Rs 98.33 crore. HUDCO agreed (September 2000) but charged Rs 13.10 lakh as deferment fee for rescheduling the loan.

(ii) The loan sanction provided for drawal of Rs 22.62 crore and Rs 29.76 crore as I and II instalments. Based on the demand of Rs 42 crore by the Chief Engineer, Water Resources Organisation, Chennai Region (CE) for expenditure upto June 1999 and the requirement of Rs 12 crore by TNSCB, CMDA drew both the instalments (Rs 52.38 crore) in March 1999. It was, however, seen that the actual requirement of PWD was only Rs 9.94 crore and the CE had inflated the requirement by including Rs 10.06 crore relating to 1998-99 and Rs 22 crore towards land acquisition which related to the package IV. Moreover, Government also provided Rs 8.51 crore to PWD as its share of the project in the budget for 1999-2000. The implementing agencies spent only Rs 23.16 crore till March 2000 (Rs 19.05 crore from the loan amount and Rs 4.11 crore from budget provision) and kept the balance loan amount in 'Deposit' account of the Government. As such, the first instalment of loan

* Improvement to Cooum River, Improvement to Otteri Nullah and providing flood defence and resectioning in Adyar river at LS 0 to 15700 metres

(Rs 22.62 crore) would have been sufficient for executing the works till March 2000 and further instalments should have been drawn thereafter. The drawal of Rs 29.76 crore in March 1999 without requirement resulted in availing this portion of loan at an interest rate of 15 *per cent* instead of at 13.5 *per cent* payable for the loan drawn after 31 March 2000. The avoidable interest payment worked out to Rs 5.36 crore.

Thus, inflation of requirement of funds for the project by CE resulted in a wasteful expenditure of Rs 5.49 crore to Government.

The matter was referred to Government in May 2002; reply had not been received (December 2002).

4.3 Unproductive expenditure due to change in the scope of work during technical sanction and execution

Failure to provide the required bed width and height in the work of providing flood defences and resectioning in Adyar river resulted in non-achievement of objective even after spending Rs 2.52 crore.

The work of flood defences and resectioning in Adyar river, sanctioned by Government in August 1998, was divided into three sub-works. In one sub-work *viz*., Longitudinal Section (LS) 12.20 kilometre (km) to 24.68 km, the Chief Engineer (Plan Formulation), Chennai proposed (January 1999) to provide flood banks on either side of the river by executing earthwork for a bed width of 125 metres (m) and forming bunds for a height of 4.5m to carry a maximum flood discharge of 50000 cusecs experienced during 1985 floods. The estimate included the cost of land acquisition for widening the bed width.

The Chief Engineer, Chennai Region, while according technical sanction for the sub-work (March 1999), deleted the provision for acquisition of land for widening the bed width to the designed level. The deletion was to result in reduction of earth work by 25 *per cent* and execution of work within the available river margin. The work was taken up for execution in October 1999 for Rs 3.59 crore. As of July 2002, Rs 2.52 crore was spent.

Test-check of the records in Kosasthalaiyar Basin Division, Thiruvallur revealed that the bed width of the river in this reach after execution was only 30 to 50 m in 2.04 km, 50 to 70m in 2.82 km, 70 to 90m in 3.18 km, 90 to 110m in 2.34 km due to deletion of provision for land acquisition. Further, wherever the width of the river was very low, the right side flood bank was not formed to allow the water to enter the nearby fields. Consequently, only 1622 cusecs to 14576 cusecs of water could flow in the river where the bed width ranged between 30 to 70m. This resulted in large scale inundation on account of overflow of 48378 to 35424 cusecs of water. When pointed out, the Executive Engineer (EE) stated that considering the free board of 1m, the river would carry a maximum flood discharge of 40000 cusecs. As the balance quantity of 10000 cusecs of water which would overflow to the paddy field in this reach would recede in a few hours, the acquisition of land at high cost to increase the bed width of the river was not considered. The contention of the EE was not tenable as the height of the bund was less than the envisaged height of 4.5m in 7.32 km* in the test-checked portion and hence no free board was available.

Thus, change in the scope of work during technical sanction and during execution actually defeated the objective of providing flood defences in the river, in spite of an expenditure of Rs 2.52 crore.

When the matter was reported (May 2002), the Government endorsed the views of Chief Engineer, Water Resources Organisation (CE) wherein it was contended that the actual bed fall as per the bed levels taken during execution was 1 in 1000m (i.e. 1m for every 1000m) as against 1 in 1716m adopted in the estimate and based on this bed fall, the bed width required for the flood discharge of 50000 cusecs was 82m against 125m envisaged in the estimate. The CE stated that bed width of 82m was kept to a length of 5.60km where the river margin was more than 70m and wherever the river margin was less than 70m, the river depth was increased to compensate the shortage to allow free flow of 50000 cusecs of water.

The contention of the CE was not factual, as the estimate was prepared after detailed investigation by a special division and the level measurements taken during execution revealed that the bed level was 3.13m at LS 12200m and 10.65m at LS 24680m indicating that the actual bed fall was only 1 in 1660m and not 1 in 1000m. Moreover, the river depth was not increased in reaches where the river margin was below 70m and such execution would also obstruct free flow of water.

* less than 1m in 0.60 km, 1m to 2m in 1.71 km, 2m to 3m in 2.70 km, 3m to 4m in 2.28 km, 4m to 4.5m in 0.03 km.

4.4 Non-utilisation of departmental machinery

In spite of specific instructions the departmental machinery was not utilised for desilting works, resulting in cash outflow of Rs 1.51 crore.

With a view to avoid the low utilisation of departmental heavy machinery and equipment, Government instructed (January 1999) all regional Chief Engineers (CEs) to give work to Machinery Circle. In February 1999, the CE, Design, Research and Construction Support (DRCS) requested all CEs and Superintending Engineers (SEs) to entrust desilting works to Machinery Circle. The SE, Machinery Circle communicated to all SEs (November 1999 and March 2000) the rate for earthwork excavation, conveyance for using heavy machinery and the list of machinery available for desilting work. He sought allotment of works of desilting the bed and formation of tank bund to Machinery Circle on the plea that expenditure based on use-hour rate of machinery would be less than the rate intimated by him. Government also reiterated the instructions to all CEs in October 2000.

In spite of repeated instructions for allotment of work to Machinery Circle, the Executive Engineer, Gundar Basin Division, Madurai (EE) carried out desilting and standardisation of 58 tanks involving excavation of 3.86 lakh cubic metre (cu.m) of earth at a cost of Rs 2.49 crore through contractors during July 2000 to August 2001. This was in violation of Government order.

To an audit reference, the Executive Engineer, Machinery Division II, Trichy stated (May 2002) that the entire quantity of 3.86 lakh cu.m could have been executed by them within that period and that the cost would have been Rs 1.31 crore based on prescribed use-hour rates of machinery. Allowing 75 *per cent* of this cost towards the running cost of machinery (excluding salaries), there was a net cash outflow of Rs 1.51 crore to Government due to non-utilisation of departmental machinery.

When the failure of the EE to follow the instructions of Government and higher authorities was pointed out, the Chief Engineer, Madurai Region, (CE) contended that entrustment of work to Machinery Circle would be considered only when huge quantities of earth work at a time was involved. The average quantity involved in tank desilting work was only 5000 cu.m and the works were sanctioned by the Collector in a scattered manner. He also stated that the Machinery Circle had not communicated the transportation charges for the machinery which was not included in the rates furnished by the circle and consequently estimates using Government machinery could not be prepared. Government endorsed (July 2002) the views expressed by the CE.

The contention of the CE was not tenable, as the inhouse resources were kept unutilised in spite of specific instructions (March 2000) of CE (DRCS) to SEs.

Further, the estimates for desilting the tanks were prepared between May to September 2000 (47 works) and February to May 2001 (11 works) i.e. not in a scattered manner. The use-hour rates of machinery and conveyance charges were being approved by the Machinery Circle annually and communicated to all circles and CE could have adopted those rates to prepare the estimates.

Thus, the EE failed to utilise departmental machinery in desilting works resulting in unnecessary cash outflow of Rs 1.51 crore.

4.5 Irregular retention of funds outside Government Account resulted in blocking of Government funds and avoidable interest liability

Contrary to the Government instructions, Rs 1.51 crore were deposited with the Land Acquisition Officer for payment of compensation to land owners, leading to blocking of Government funds and avoidable interest liability of Rs 25.05 lakh.

In July 1987, Government discontinued the procedure of making advance payment to Land Acquisition Officers (LAOs) towards acquisition of land and instead authorised the LAOs to make the payment by presenting bills at the Treasuries. In respect of land acquisition for Public Works Department, the Treasury Officer operated the Remittance Head '8782'.

In contravention of the above procedure, the Executive Engineer (Construction and Maintenance), Tiruvannamalai (EE) deposited (March 1999) Rs 1.51 crore (based on approximate value of land and buildings) with the LAO for the land acquired for the construction of Master Plan Complex for the newly formed Tiruvannamalai District. The LAO kept the amount in Savings Bank account with State Bank of India (SBI) and spent Rs 75.64 lakh during August 1999 to September 2000. In spite of requests by the EE, the LAO did not refund the balance of Rs 75.09 lakh together with the interest of Rs 14.08 lakh accrued as of August 2002.

The wrong procedure followed by the EE resulted in keeping public money outside Government account for over 3 years. As Government borrowed funds from open market at 12.5 *per cent* during 1998-99, the interest liability was Rs 39.13 lakh upto August 2002, whereas SBI paid only Rs 14.08 lakh as interest. Thus, there was an avoidable interest liability of Rs 25.05 lakh.

The matter was reported to Government in May 2002; Government stated (August 2002) that the EE deposited the amount based on the demand made by Revenue authorities. The reply was not tenable since the EE has violated the orders of Government and LAO abetted the irregularity.

4.6 Avoidable additional expenditure due to failure to issue administrative sanction

Failure of the Secretary, Public Works Department to communicate to the Chief Engineer the administrative sanction resulted in non-provision of funds in the budget leading to delay in execution and stoppage of work and additional expenditure of Rs 60.65 lakh.

Consequent on the closure of the World Bank aided 'Dam Safety Assurance and Rehabilitation Project' in September 1997, the Secretary, Public Works Department (PWD) obtained (July 1998) administrative approval from the Chief Minister for Rs 34.84 crore for all the incomplete works on five dams and sanction for incurring Rs 9.80 crore during 1998-99 for seven sub-works in three dams. While issuing the Government Order, Finance Department opined that the administrative sanction may be restricted to Rs 18.50 crore for the seven sub-works as the other components could be taken up under Water Resources Consolidation Project. Though these seven sub-works formed part of total administrative sanction of Rs 34.84 crore, the Secretary, PWD failed to issue administrative sanction for Rs 18.50 crore. However, the Secretary issued the sanction for expenditure of Rs 9.80 crore only for these sub-works (1998-99).

Government accepted (April 1998) the lowest bid of Rs 6.51 crore for execution of one such sub-work, 'Construction of Additional Spillway to Vidur Dam'. The sub-work was taken up for execution based on the expenditure sanction for 1998-99 and the Department sought funds in the budget for 1999-2000 and 2000-2001. Funds were not allotted by Finance Department for want of administrative sanction for the work. However, Finance Department released Letter of Credit for Rs 1.80 crore till August 1999 to meet the committed expenditure on the sub-work upto June 1999 and stopped further release for want of administrative sanction. As the outstanding payments had risen to Rs 2.07 crore by June 2000, the contractor stopped the work and finally sought (January 2001) termination of the contract. The contractor, however, agreed (April 2001) to resume the work on the condition that escalation clause should be included for revising rates for balance works. The Adjudicator appointed to decide the issue recommended payment of interest at 10 *per cent* for the belated payments of bills as provided in the agreement and grant of escalation in price for the balance work, though not included in the agreement. Government accepted the recommendation and paid Rs 18.99 lakh as interest for belated settlement of bills and increased the contract price for the balance work by Rs 30.06 lakh.

In addition, the delay in execution of works also resulted in an additional expenditure of Rs 11.60 lakh towards strengthening the existing earth bund in March 2000 and August 2000 which had been cut open by the contractor.

Thus, the failure of the Secretary, PWD to issue the administrative sanction resulted in delayed release of funds leading to avoidable additional expenditure/liability of Rs 60.65 lakh.

The matter was referred to Government in May 2002; reply had not been received (December 2002)

4.7 Extra expenditure due to inadequate soil/site investigation

Preparation of estimate for spillway work without adequate soil/site investigation and subsequent design change resulted in extra expenditure of Rs 25.17 lakh towards payment of higher rates for additional quantities during execution.

The construction of additional spillway in Sathanur Dam was awarded to a contractor for Rs 4.64 crore in June 1997 for completion in 18 months. The work was taken up in September 1997 and during execution, additional quantities and additional items of work valuing Rs 2.86 crore was necessitated by site conditions, revision of design and instructions of supervisory officers. As the additional quantities exceeded the agreement quantity by over 25 *per cent* in certain items of work, these additional quantities were executed at a higher rate than that of the agreement. The work was completed at a cost of Rs 7.02 crore in September 1999 leaving out 2 *per cent* of civil work to be carried out along with the provision of gates to the spillway.

Scrutiny of records relating to the execution of work disclosed the following:

(i) Though the formalities for transferring forest land where the additional spillway was proposed had been completed in 1967 itself, the land was not taken over by Public Works Department for want of survey demarcation. Consequently, the estimate was prepared (October 1996) without conducting the soil test covering the entire excavation area. Moreover, no provision was made in the sanctioned estimate for undulations in portions not covered by detailed investigation. The forest land was taken over only in September 1997 and detailed soil/site investigation carried out thereafter revealed undulations and existence of hard rock involving additional excavation resulting in execution of 27256 cubic metre (cu.m) of earth work at higher rates. Had the site been taken over before preparation of detailed estimate, the quantities could have been assessed correctly and executed at agreement rate.

(ii) While approving the drawings for the work, the Chief Engineer, Design, Research and Construction Support ordered (June 1996) to finalise the design for energy dissipation arrangement after conducting model studies. However, due to poor coordination between the Executive Engineer, Lower Pennaiyar Basin Division, Villupuram and the Director, Institute of Hydraulics and Hydrology, Poondi, the data required was furnished to the Director only after November 1997 and the design was finalised in January 1998. The delay led to change of design and execution of 4536 cu.m of cement concrete at higher rates. Had the model studies been conducted before issue of tender in January 1997, the quantity for these items could have been correctly assessed and executed at agreement rate.

Thus, preparation of estimate without adequate soil/site investigation and finalisation of design resulted in avoidable extra expenditure of Rs 25.17 lakh towards execution of work at higher rates than those agreed (Appendix XXIX).

The matter was referred to Government in May 2002; reply had not been received (December 2002).

PUBLIC WORKS, REVENUE AND INDUSTRIES DEPARTMENTS

4.8 Extra expenditure due to illicit quarrying

Failure of the Public Works, Revenue and Industries Departments in preventing illicit quarrying resulted in extra expenditure of Rs 3.31 crore on formation of flood banks.

The Mines and Minerals (Regulation and Development) Act and the Rules made thereunder stipulate that no person shall quarry or remove sand from river beds without the permit issued by the District Collector, who shall obtain clearance from the Public Works Department (PWD) before permitting quarrying. While the Chief Engineer as 'Conservator of River' can prohibit absolutely the quarrying in river beds, the Revenue Divisional Officer (RDO) concerned shall have the power to lodge complaint in Police station against the persons involved in illegal quarrying. The designated officers of Department of Geology and Mining, Revenue Department and local bodies concerned are authorised to inspect records relating to quarrying and seize vehicles involved in illegal quarrying.

Records of the Kosasthalaiyar Basin Division, Thiruvallur revealed that the Executive Engineer (EE) requested the Revenue Department and the Collector 17 times during October 1997 to August 1998 pointing out the illicit quarrying by anti-social elements on both sides of Vallur Anicut in Kosasthalaiyar river which adversely affected the strength of the Anicut and led to inundation of adjoining areas during flood season. However, no action was taken and the illicit quarrying continued which necessitated strengthening the flood banks on both sides of Kosasthalaiyar river. The work of strengthening of flood banks on both sides of Vallur Anicut was included under the Flood Alleviation Programme (August 1998) and the EE conducted a detailed survey (January 1999) to estimate the quantity of earthwork required. He also informed the Collector (August 1999) regarding the continuing illicit quarrying and its adverse effects. During execution, the earthwork included in the contract for bund formation was found insufficient and the Chief Engineer, Chennai region proposed additional earthwork (January 2001) at a cost of Rs 3.38 crore attributing the entire additional quantity to illicit quarrying. After obtaining Government approval (November 2000), the additional work was completed in March 2002 at a cost of Rs 3.31 crore.

When the avoidable additional expenditure was reported to Government (May 2002), the Secretary to Government, PWD stated (August 2002) that the Revenue Department was responsible for prevention of illicit sand mining and a close coordination with Revenue and Police Department would be maintained to avoid illicit quarrying. The Revenue Department contended (August 2002) that though the stopping of illicit quarrying was done by the officials of Revenue Department, they were controlled by Industries Department at Government level. The District Collector contended (August 2002) that since PWD was the river conservator, they should have made criminal complaint to Police and that the High Court had instructed the departmental officers to lodge criminal complaint treating the offence of illicit quarrying as theft and damage to public property. However, none of the departments had discharged their duties envisaged in the Act and Rules, leading to an extra expenditure of Rs 3.31 crore to Government on account of illicit quarrying. Incidentally it was also seen that the High Court, Chennai, while admitting (August 1999) the writ petition filed by the villagers owning land adjoining Kosasthalaiyar river had directed the officers of Revenue and Industries Departments to prevent illicit quarrying. But this direction of High Court was also not honoured.