

# **CHAPTER IV**

## **WORKS EXPENDITURE**



# **AUDIT PARAGRAPHS**



## PUBLIC WORKS DEPARTMENT

### 4.1 Additional expenditure due to avoidable delay in the execution of road work

#### **Failure of the Principal Engineer to assess the quantity of Profile Corrective Course before awarding a road work resulted in additional expenditure of Rs 49.75 lakh.**

The work of strengthening the existing two lane pavement from kilometre (km) 3.27 to km 8.80 on NH 45A, approved by Ministry of Surface Transport (MOST) for Rs 60.98 lakh in November 1989 and revised to Rs 98.61 lakh in February 1992 and taken up for execution in April 1992, could not be completed within the scheduled period of twelve months due to delay in assessing the quantity for Profile Corrective Course (PCC) by the Principal Engineer, Public Works Department, Pondicherry (PE). The contract was foreclosed in April 1995 as the contractor demanded higher rate. The balance work was taken up only in March 1998 after MOST approved the revised estimate in March 1997, and was completed in November 1999. As of February 2000, Rs 1.21 crore was paid to the contractor. The delay of over eight years in taking up the work and the consequent cost escalation were avoidable as discussed below.

MOST while approving the estimate in November 1989 stated that the quantity of PCC (2035 cubic metre (cu.m)) provided in the estimate was tentative and the actual quantity of PCC should be assessed by taking detailed cross-section levels and got approved by Regional Officer, MOST, Chennai (RO) before execution. The Executive Engineer, National Highways Division, Pondicherry (EE) called for tenders without getting the approval of RO for the actual quantity of PCC and the PE recommended (January 1992) the lowest tender received for the fourth call for approval by MOST along with a revised estimate for Rs 98.61 lakh and assuring to assess the actual quantity of PCC before execution.

MOST approved the revised estimate in February 1992 and the EE awarded the work in April 1992 for execution by May 1993. The EE assessed the quantity of PCC and sought the approval of RO only in November 1992. The RO, after joint inspection in January 1993, approved the quantity (1119 cu.m) in August 1993. The EE, instead of allowing the contractor to commence the work based on this approved quantity, again proposed (December 1993) revision of PCC quantity citing the deterioration of road surface due to rain. The RO approved the revised quantity (1915 cu.m) in December 1993. As the contractor demanded (December 1993) higher rate to execute the work, the EE foreclosed the contract without risk and cost. The contractor was paid Rs 1.05 lakh for the culvert work executed by him.

The EE called for tenders for the balance work and sent (September 1995) another revised estimate to MOST for approval. Though the work order was issued in November 1995, the work could not be carried out for want of approval of revised estimate and the contract was cancelled in February 1996. MOST after seeking clarification regarding the circumstances warranting the foreclosure of the earlier contract, approved the revised estimate for Rs 140.50 lakh in March 1997. After obtaining technical sanction, the EE called for tender in November 1997 and awarded the work in March 1998. The EE reassessed the quantity of PCC (2004 cu.m), which was approved by RO in October 1998.

Thus due to failure of PE in following the instructions of MOST, the public were not provided with the facility of a good road besides additional expenditure of Rs 49.75 lakh to Government.

The matter was referred to Government in August 2000; Government stated (September 2000) that the work of taking PCC levels in the busy road was time consuming and taking the levels after issuing work order in April 1992 and the delay in getting approval from the RO resulted in foreclosure of the contract and further delay which were unavoidable. The contention of Government was not tenable due to the abnormal delay in assessing PCC quantity which resulted in delay of execution of the work.

#### **4.2 Fixation of higher compensation due to wrong inclusion of land required for realignment**

**Wrong inclusion of land required for another reach resulted in adoption of higher value for the land and consequent additional liability of Rs 0.22 crore to Government.**

Acquisition of land required for the formation of East Coast Bye-pass road was taken up by Public Works Department (PWD) in stages. While obtaining approval (August 1990) for acquisition of land for V reach, the Department included also the land required for realigning IV reach, on the ground that alignment based on which land was acquired had sharp bend near an existing school. The Department rejected the plea of the school for exclusion of their land from acquisition on the ground that there was no alternative.

After detailed survey, the Land Acquisition Officer (LAO) issued notification under Section 4 (1) of Land Acquisition (LA) Act in August 1997 and determined (June 1998) the value of land at Rs 64,560 per Are<sup>1</sup> based on the market value of a piece of land required for

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<sup>1</sup> 1 Are = 100 square metre

realigning the IV reach. When the acquisition proceedings reached the stage of passing award and taking possession, the Department requested (January 1999) the LAO to stop further proceedings. The Department also decided (June 1999) to withdraw the land required for straightening the bend in the IV reach from the acquisition proceedings on the ground that the road was laid in the reach as per the original alignment and the land available with them would be enough for straightening the bend. While the proposal for withdrawal was under consideration of the Government, the LAO passed the award (December 1999) for Rs 2.29 crore for the entire land requisitioned. The land, except the school land, was taken possession in October 2000.

The compensation payable for land required for V reach (101.02 Ares) due to linking of land required for realigning IV reach worked out to Rs 1.29 crore as the market value of the land in IV reach was higher and the award for the entire land was based on this rate. Had the Department acquired the land required (101.02 Ares) for V reach and the additional land (95.18 Ares) for IV reach separately, the award amount for land for V reach would have been Rs 1.07 crore only (based on the market value of Rs 47,605 per Are in respect of land required for V reach). Thus, the failure of the Department to delink the two proposals resulted in an additional liability of Rs 0.22 crore to the Government (*vide* Appendix 24).

The Chief Engineer, PWD stated (August 2000) that the proposals for acquisition of land for V reach and additional land for IV reach were interconnected. His contention was not tenable as the Department took up the work of laying the road in IV reach as per original alignment only.

The matter was referred to Government in May 2000; reply had not been received (February 2001).

### **4.3 Implementation of flood control works in Karaikal region**

**No master plan was prepared to carry out flood protection works in the Karaikal region. Carrying out works in intermittent stretches would not serve to achieve the objectives of flood protection.**

Karaikal region of the Union Territory of Pondicherry receives heavy rainfall during the north-east monsoon period (October-December) and the surplus rainwater of the region and the entire drainage and surplus water collected in the upper reaches of the rivers which are in Tamil Nadu State are discharged to the sea through this region, causing flood every year. Flood in the region causes breaches in the banks of rivers and channels,

deposit of shoal resulting in obstruction of free flow of water, inundation of agricultural lands causing damage to standing crops and loss to livestock.

The Executive Engineer, Irrigation and Public Health Division, Karaikal (EE) executed the flood control works under the supervision of Superintending Engineer, Circle II, Pondicherry (SE) and Chief Engineer, Pondicherry (CE). During 1995-2000, the EE incurred Rs 15.56 crore under 'Flood Control'. Records connected with the execution of 153 out of 196 works sanctioned during 1995-2000 were scrutinised in the offices of EE and SE during May 2000 and the findings are discussed in the succeeding paragraphs.

**Expenditure confined to available funds**

(i) No budget proposals were sent by EE and the expenditure was incurred to the extent funds were provided in the annual plan. Government stated (September 2000) that the annual plan was prepared based on proposals received from EE. The proposals were, however, not produced to audit.

**Achievement could not be correlated to targets**

(ii) In the annual plans for 1995-2000, the physical targets were fixed in terms of area proposed to be stabilised by carrying out flood control works whereas achievements were furnished only in terms of length of rivers and channels improved or deepened and length of banks standardised. Government stated that the achievement in areas would also be reported in future.

(iii) It was seen that 8 works costing Rs 2.05 crore executed during 1995-2000 to increase the efficiency of the drainage system by regrading the entire length of channels with proper shape and providing revetment on the sides, were classified under 'Revenue', while 52 desilting works costing Rs 24.71 lakh which were in the nature of maintenance were incurred under 'Capital'. Government replied that the correct classification would be done in future.

**Diversion of funds**

(iv) There was no approved action plan for execution of the schemes. Though the EE compiled 493 works in the constituency-wise priority list during 1995-2000, only 63 works from this list and 36 desilting works not included in the list were sanctioned by Government during this period. Besides, 97 minor works were sanctioned by the EE and SE. Though protection works to the extent of 77 *per cent* remained to be carried out as of March 2000 and 48 *per cent* of total irrigated area were affected due to inundation in 1996 and 1997 floods, the EE spent Rs 2.96 crore during 1995-2000 on impounding water for creation of irrigation facilities, drinking water supply by recharging ground water table and arresting sea water intrusion, which were not flood protection works, thereby depriving funds for flood protection works. Government contended that irrigation and drinking water supply are incidental to the objective of flood moderation. The contention was not tenable as only structures obstructing free flow of flood water were to be taken up under 'Flood Control'.



(v) The points noticed in the execution of the works are discussed below:

**Non-achievement of objective due to poor execution**

(a) In order to save agricultural land to the extent of 695 acres from submerging during flood due to poor drainage system, Government sanctioned (December 1994), Rs 61.46 lakh for improving Nanavaikal relief drain. The entire work was completed by March 1996 except a small stretch between 2358 metre (m) and 2468 m as the land owner obtained a stay from the High Court. Due to non-excavation of the channel for 110 m, there was huge erosion of earth in the bund during 1996 floods thereby raising the bed level of upper reach and affecting the flow of water. The contractor refused to rectify the damages citing non-handing over of the site in time and huge cost. The total expenditure incurred on the above works was Rs 67.19 lakh. Though the stay was vacated in April 1997 and the rectification work (maintaining the designed bed level and restoration of damaged revetment) was included in the priority list for 1998-99 and 1999-2000 (estimate : Rs 7 lakh), the work was not taken up (May 2000) due to lack of funds. Consequently, the objective of the work executed at a total cost of Rs 67.19 lakh was not achieved and the flow of flood water continued to be affected because of higher bed level in the newly excavated portion of the channel. Government accepted the audit observation and stated that the defective bed level and damaged revetment would be rectified.

**Adoption of higher rates resulted in execution of work at exorbitant cost**

(b) With the objective of preventing stagnation of water during flood or rainy season and to ensure free flow of water in river and channel, the EE executed 84 desilting works during 1998-99 and 1999-2000 (estimate : Rs 81.14 lakh). In the Schedule of Rates (SR) for Karaikal for 1998-99 and 1999-2000, the rate for desilting works was not available. The EE, instead of following the Thanjavur SR which was followed till 1997-98, arrived at the rate for this item from the schedule of rate for earth work excavation meant for road works as per Karaikal SR. Besides, the soil was classified as hard soil instead of ordinary soil and the estimates were boosted. While 9 works were executed at rates ranging from Rs 15 to Rs 18.50 per cubic metre (cu.m.) during 1999-2000, two works were awarded on nomination basis at the estimated rate and 73 works were executed at more than the estimated rate. The rates as per Thanjavur SR, the rates actually adopted in the estimates and the rates obtained in tender in respect of 75 works were as under:

Year	Rate as per Thanjavur SR		Rates adopted in estimates	Rates obtained in tender
	Hard Soil	Ordinary Soil		
1998-99	16.60	13.20	26.28	19.94 to 27.58
1999-2000	18.25	14.50	33.60	26.28 to 35.00

Thus, 75 desilting works were executed during 1998-99 and 1999-2000 at exorbitant cost and the excess expenditure in respect of 62 works, for which details of works executed were furnished to audit, based on Thanjavur SR

worked out to Rs 20.11 lakh. Government stated that the soil turned hard due to non-desilting of rivers and channels and there was no necessity for adopting Thanjavur SR when separate SR for Karaikal was approved. The reply was not acceptable as Karaikal SR contained rate for road and building works only and the Department adopted Thanjavur SR in other estimates as there were no prescribed rates in the SR of the Union Territory. It was, further, seen that the contractors' rate for desilting work in the Thanjavur district of Tamil Nadu ranged between Rs 9 to Rs 9.50 per cu.m.

**Failure to assess the quantity of work and consequent extra liability**

(c) The work of construction of tail end regulator across Thirumalairajanar was awarded (June 1994) to a contractor without preparing the detailed estimate and technical approval by CE, though the soil investigation was conducted as early as October 1993. After commencement of work, the detailed estimate was prepared based on the soil investigation done in October 1993, resulting in change in foundation design and execution of quantity over and above the tender and agreed quantity. Had the detailed estimate been prepared based on soil report before calling for tenders, the tenderer to whom the contract was awarded would not have been the lowest one. Thus, the failure to assess the quantity of work correctly before calling for tenders resulted in an extra liability of Rs 3.39 lakh.

Government contended that the design could not be evolved with precision before calling tenders. This contention was not tenable as tender was called for even without technical sanction and during execution, the quantities varied widely and were in excess by 37 to 87 *per cent* over agreed quantities.

**Non-maintenance of work accounts**

(d) The EE did not maintain the work accounts properly. The entries in the contractor's ledger were made only at the time of payment of bills to the contractors and the amount outstanding under suspense accounts like advance payments, secured advance, etc., was not ascertainable. Completion report was not prepared in respect of any of the 175 works executed during 1995-2000. Government agreed to maintain the records properly in future.

#### **4.4 Unintended benefit to the contractor due to incorrect method adopted for payment to shore protection work**

**Adoption of incorrect percentage for voids to arrive at the volume of boulders actually used for seashore protection works resulted in unintended benefit to the contractor to the tune of Rs 6.35 lakh.**

According to Central Public Works Department (CPWD) specifications, the volume of excavated rocks (boulders weighing 100 Kilograms (Kgs) to 700 Kgs) are to be reduced by 50 *per cent* for voids from the measured quantity when stacked. The Schedule of Rates provided per cubic metre rates for stone boulders. The Executive Engineer, Irrigation Division,

Pondicherry (EE) converted it into rate per tonne, on the basis of specific gravity of 2.76, while preparing the estimate for the seashore protection work, which involved packing of boulders for the required slope. In the tenders, the rate for this item of work was obtained on weight basis. The weight was, however, to be counterchecked with the weight worked out as per the volume measurement.

Test-check of three seashore protection works executed by the EE revealed that the voids for the boulders was adopted at 30 and 40 *per cent* instead of 50 *per cent* both while estimating the quantity and at the time of working out the volume of actual work executed for countercheck. The payment for this item was, however, made on the basis of the weight of rocks actually brought to site.

The method adopted by the EE for making payment for this item by weight was not in order as (i) both the estimate and final measurement were based on volume of work, (ii) the rate for the work include not only for supply of material but also for packing charges and (iii) the weight arrived at by volumetric method alone would give the actual quantity of rock used in the work.

Thus, the payment for this work should have been made by volume of work executed. The unintended benefit to the contractors of these three works due to payment made by weight without providing for the prescribed percentage for voids was Rs 6.35 lakh (*vide* Appendix 25).

Government in reply stated (September 2000) that 40 *per cent* void was adopted as per the provision of 'Specification for Roads and Bridges'. The reply was not tenable as the specification related to road work where excavated rubble were of smaller size, while the material involved in this work were boulders weighing 100 to 700 Kgs.