

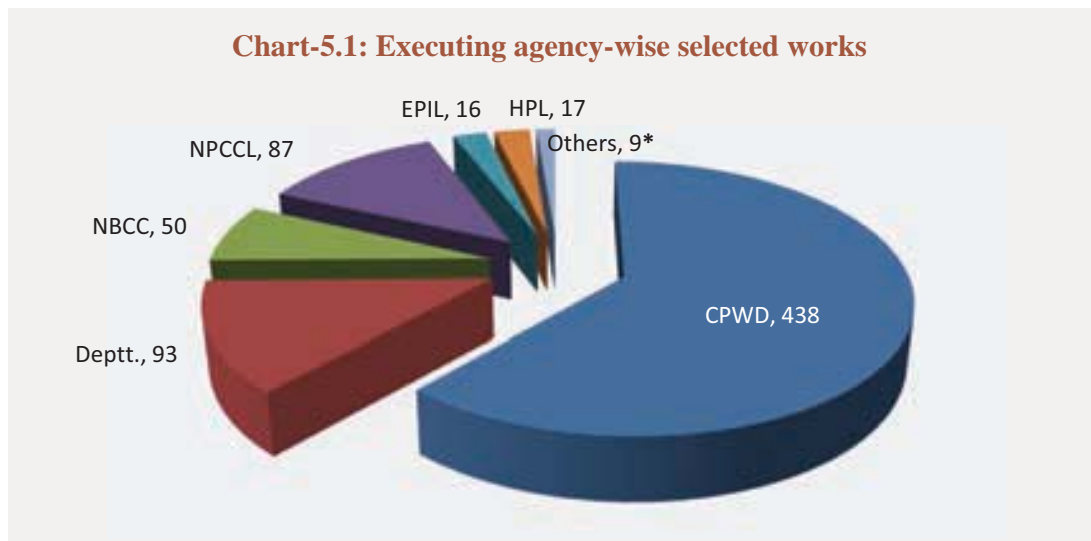
CHAPTER – V

Executing Agencies- A Comparative Analysis

An analysis of issues involved in the planning and execution of works by the executing agencies viz. CPWD, Public Works Organizations and CAPFs with their own engineering wing was carried out on the basis of following criteria:

- Preparation and submission of Preliminary Estimates
- Not obtaining requisite approvals from local authorities
- Irregularities/delay in tendering process
- Deviation in items/Extra items/Substituted items
- Delay in completion of work
- Cost overrun in completed works due to delayed execution
- Savings in completed works due to overstated estimates

For comparing the working of executing agencies, audit selected 710 works each amounting more than ₹10 lakh executed by CPWD, PWOs and Departmental works by CAPFs which have engineering wing during the period 2008-09 to 2013-14 as depicted below :

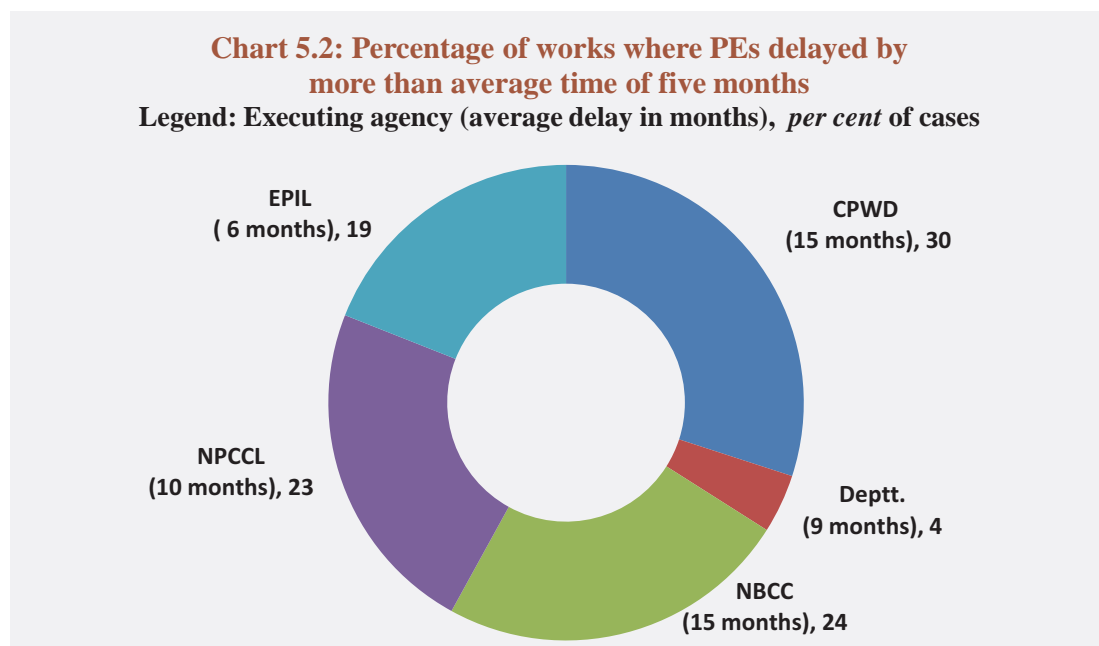


Others, 9*: DMRC-1, JKPCC-1, ECB-1, UPJN-6

Audit collected the data during audit examination for above parameters and critically analyzed the data, the conclusions of which are elucidated in succeeding paras :

5.1 PREPARATION AND SUBMISSION OF PRELIMINARY ESTIMATES (PEs) BY EXECUTING AGENCIES TO CAPFs

Though no standard time frame for preparation and submission of PEs by the executing agencies to CAPFs exists, audit worked out five months as the average time taken by the executing agencies in submission of PEs from all the works audited. Thus, the works which took more than five months in preparation of PE are depicted below:



CPWD and NBCC took on an average of 15 months in their 30 and 24 *per cent* works, while NPCCL and EPIL took ten and six months in their 23 and 19 *per cent* works respectively in submitting PEs to CAPFs. Though CAPFs having their own engineering wings, have to prepare PEs themselves, four *per cent* of the total departmental works also submitted delayed PEs on an average of nine months. Delay in the preparation and submission of PEs invariably pushed the deadlines further, right at the beginning of the project itself.

5.2 DELAY IN TENDERING PROCESS

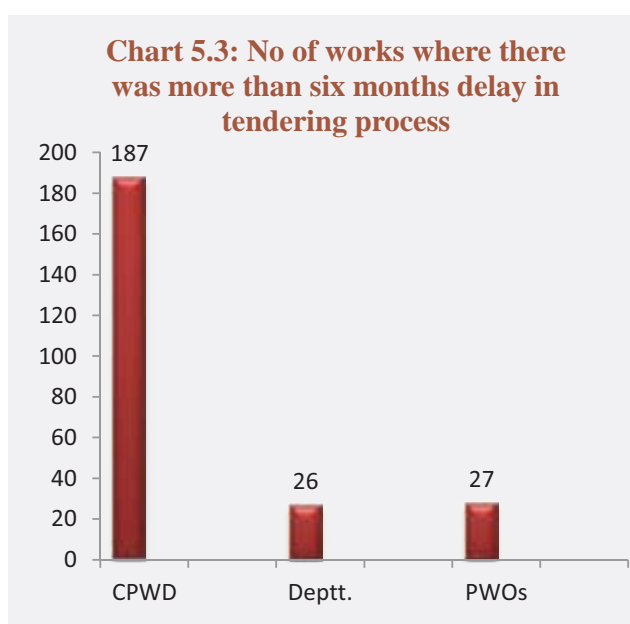
Audit noticed that there were more delays in award of work in CPWD, departmental works and PWOs. No criterion was fixed by executing agencies for themselves in so far as efficiency was concerned. After allowing a reasonable timeframe (upper limit) of six months for award of work, delays were calculated from the date of approval of AA&ES to award of work. Out of 710 works checked, 681 works were awarded to the contractors while for the remaining 29 works¹ no tenders were invited after sanction of AA&ES as of December 2014. Audit examination of 681 works further revealed that in 240 works (33.8

¹ 29 works are shown in bold text in Annex-1.3

per cent) involving ₹ 1161.10 crore, there were delays beyond six months in awarding the contracts, ranging from 7 to 90 months from the date of sanction of AA/ES as depicted in the chart here.

The delay in award of works was attributed by the executing agencies to the delayed receipt of decision/approval for the changes, delayed preparation of drawing and designs, detailed estimate, non-availability of funds and re-tendering etc.

It is evident that CPWD took more time as compared to PWOs which included NBCC (8 works), NPCCL (7 works), EPIL (5 works), UPJN (5 works), HPL and DMRC one work each and departmental works. Delay in award of works caused delay in their completion which ultimately resulted in cost overruns.



5.3 REQUISITE APPROVALS FROM LOCAL AUTHORITIES NOT TAKEN BEFORE ISSUE OF NIT BY THE EXECUTING AGENCIES

Audit examination of records revealed that all executing agencies i.e. CPWD, PWOs and CAPFs did not take approvals from the local authorities before issue of NIT in almost all works where approval was necessary as evident from Table 5.1.

Table 5.1: Details of approvals taken from the local authorities by the executing agencies

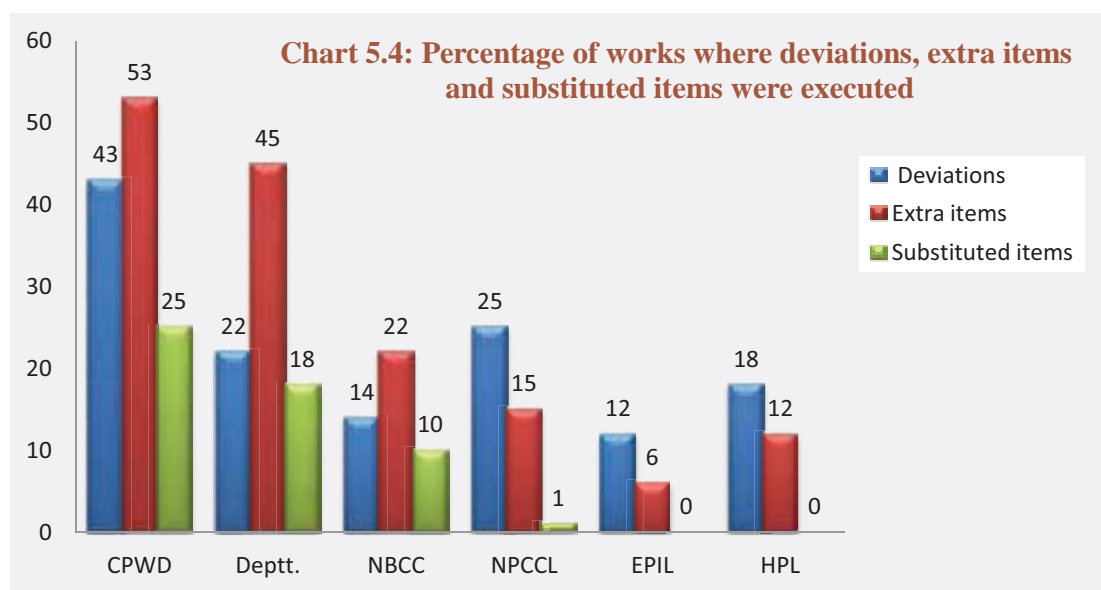
Executing agency	Total works selected	Total works for which approvals required before issue of NIT	Approvals not taken before issue of NIT
CPWD	438	170	168 (99%)
Deptt.	93	31	26 (84%)
NBCC	50	31	19 (61%)
NPCCL	87	87	87 (100%)
EPIL	16	16	16 (100%)
HPL	17	17	17 (100%)
OTHERS*	9	8	8 (100%)
TOTAL	710	360	341

*DMRC-1, JKPC-1, ECB-1, UPJN-6

Only NBCC in 39 per cent and CAPFs in 16 per cent departmental works took approvals from the local authorities before issue of NIT of works. This clearly shows that the executing agencies did not follow the prescribed procedures and despite substantial time taken in initial planning did not take requisite approvals.

5.4 DEVIATION IN ITEMS/EXTRA ITEMS/SUBSTITUTED ITEMS

Audit noticed large scale deviations in the quantities of items executed in the works by the executing agencies as depicted below :



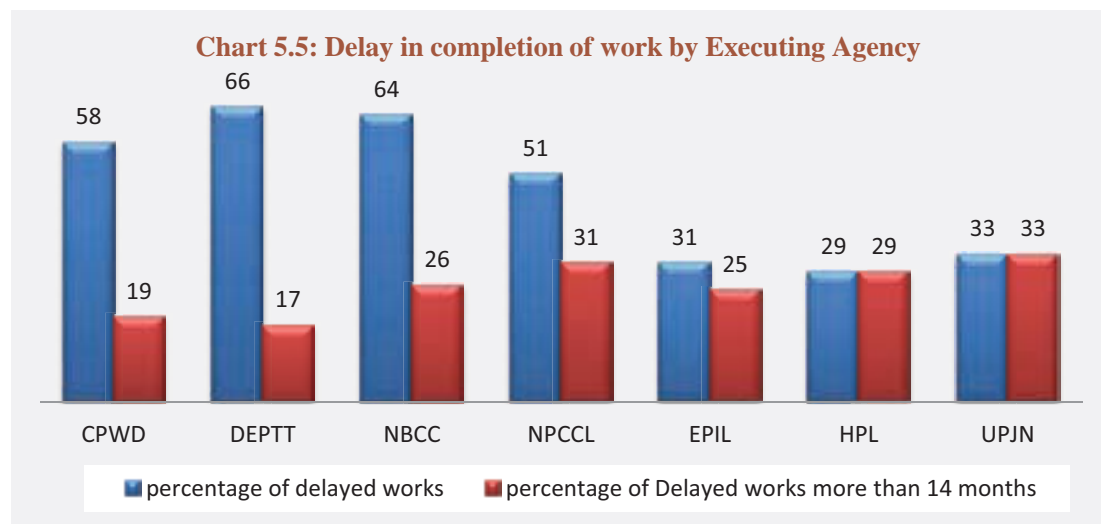
Though the permissible deviation in work is 100 per cent in foundation works and 30 per cent in building works, none of the executing agencies could stick to the stipulation. Audit noticed that works of CPWD had more deviations followed by departmental works and works executed by NPCCL. The executing agencies stated that the deviations in works were due to site condition, structural requirement as per drawings and change in scope by client. CPWD being the biggest and oldest executing agency still resorted to many change in original plans. In all cases, total deviations resulted in extra cost of ₹ 82.88 crore. It is indicative of the fact that quantities of items of work mentioned in the detailed estimates were not realistic based on detailed field survey and as per the site conditions.

Agencies also executed large number of extra and substituted items in the works. Audit noticed that in 53 per cent works executed by CPWD and 45 per cent departmental works, extra items costing ₹ 23.62 crore and ₹ 0.97 crore respectively were used. In case of PWOs works ranging between 6 and 22 per cent, extra items costing ₹ 5.35 crore were used. Thus, extra items were used more in the works executed by CPWD and CAPFs having their own engineering wing. Executing agencies stated that execution of extra items was attributable to requirement of site, item not included in agreement, structural requirement as per drawings and items executed to make the building functional. It

confirms the fact that these were not considered while preparing DE. Similarly, audit noticed that CPWD (25 per cent) and CAPFs in departmental works (18 per cent) used substituted items costing ₹ 10.19 crore and ₹ 0.34 crore respectively. In case of PWOs, only NBCC used substituted items in 10 per cent works costing ₹ 0.24 crore. Execution of extra and substituted items by the executing agencies not only resulted in deviations from the plans but also led to extra financial burden due to increase in cost of the works.

5.5 OVERALL DELAY IN COMPLETION OF WORK BY THE EXECUTING AGENCIES:

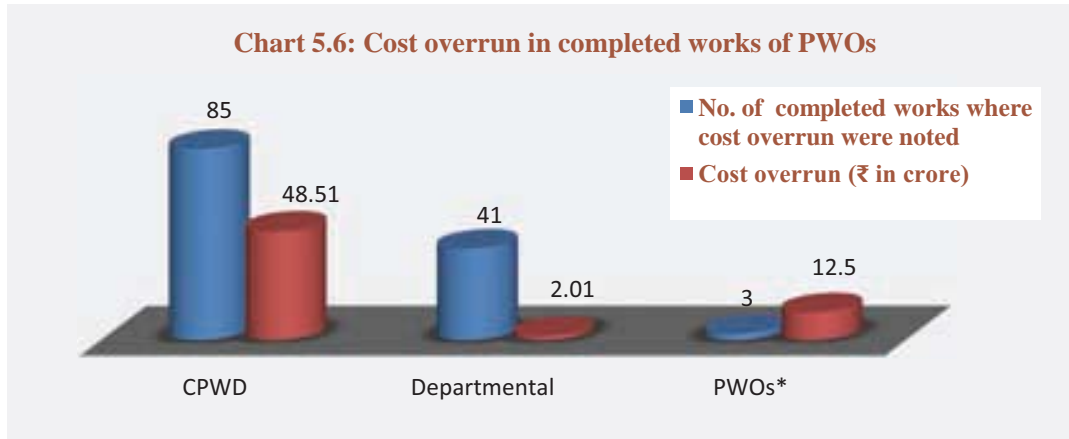
Audit noticed that out of 710 works checked, 405 works were delayed by the standards set in individual contracts. This ranged from one month (less than one month not considered) to 66 months. Audit bifurcated the delays in to all cases of missing the deadline and chronic delays of more than 14 months. (14 months being the average delay in 405 works) This calculation was done only for display purpose, as shown below in the chart:



It was noticed that in 58 per cent works executed by CPWD, there were delays in completion of work ranging between 1 and 66 months. Works done departmentally, where the CAPFs directly deal with the contractor also showed delays. It comes into view that all agencies were almost equally placed when it came to delay in work completion. The executing agencies stated that the delays were mainly due to delay in handing over/non finalization of the site, change/non-preparation of drawing and building plan etc. Delay in completion of work resulted in cost overrun due to rising cost index and caused avoidable financial burden to the exchequer.

5.6 COST OVERRUN DUE TO DELAYED EXECUTION

Audit noticed cost escalations due to delays in completion of work by the executing agencies as depicted below:

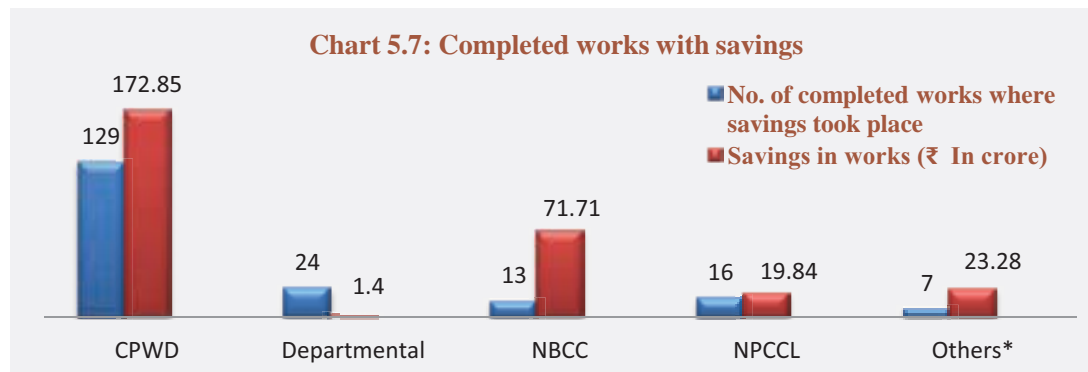


PWOs* included NBCC (2 works, ₹ 12.0 crore) and DMRC (1 work, ₹ 0.49 crore)

It was noticed that in 129 completed works, there were cost overruns amounting to ₹ 63.02 crore. Cost overrun was found more in CPWD and Departmental works, which could be linked to delays, deviation and extra items. Audit noticed large scale deviations and execution of extra items in the works executed by CPWD and departmental works. The delays were mainly attributed to delay in handing over/non finalization of the site, change/non-preparation of drawing and building plan, change in Layout Plan, heavy rain, remoteness of site (in north eastern states), frequent bundhs, labour crises, ban on migrant labour from other states (eastern states) etc.

5.7 SAVINGS AFTER COMPLETION OF WORKS

In a number of works audit noticed savings by the executing agencies after completion as depicted below:



Others* includes EPIL (5 works, ₹ 6.02 crore), HPL (1 work ₹ 5.58 crore) and JKPCC (1 work, ₹ 11.68 crore)

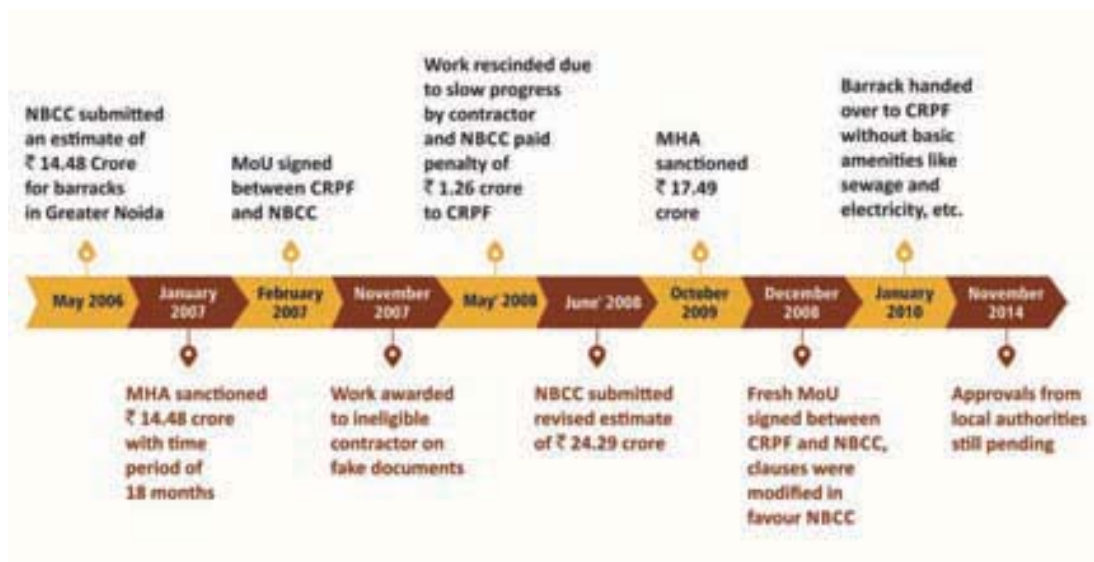
There were large savings amounting to ₹ 289.08 crore in 189 completed works executed by all the executing agencies. Huge savings were noticed in CPWD in 129 works amounting to ₹ 172.85 crore, NBCC in 13 works of ₹ 71.71 crore and NPCCL in 16 works of ₹ 19.84 crore.

While comparing cost escalation and savings, it was noted that these two factors were mutually exclusive, i.e. occurring in different works. It was stated that the savings were due to wrong calculation of plinth area by the department, modification of drawing, increase in plinth area, revision of estimates, site conditions etc. It clearly indicates that either the estimates prepared and submitted by the executing agencies were on the higher side or some items were not executed in the works as planned. MHA and CAPFs also approved the overstated estimates without proper analysis and verifications, which indicated poor financial control in budgeting and expenditure sanctions.

5.8 CASE STUDY

An illustrative example in which an executing agency erred at several stages is detailed below:

The work of construction of four Nos. 240 men barracks of CRPF at Group Centre, Greater Noida was awarded to NBCC in May 2006. NBCC submitted an estimate of ₹ 14.48 crore for barracks in May 2006. The AA & ES was accorded by MHA in January 2007 with the stipulated period of completion as 18 months from the date of AA&ES. The work was actually completed in January 2010 and taken over from NBCC by CRPF without electricity, water sewage and development works. Even up to June 2015, necessary approvals from local authorities had not been obtained and associated development works were not completed. Audit noticed that NBCC erred during execution of work at many stages as explained below in diagram:



CRPF in its reply (June 2015) accepted the observation and stated that work was delayed due to un-avoidable circumstances viz delay in obtaining the revised sanction from MHA/unprecedented price hike in the market, delay in getting approval of lay out plan(LOP) and building plan from the local authorities. Penalty/LD had already been recovered from NBCC to the tune of ₹ 1.27 crore for slow progress of work by the

contractor. It further stated that NBCC had been directed several times to get approval of the local authorities, but because of administrative problems at every stage, a reasonable delay had occurred in obtaining the approval from local authorities. At present, approval of LOP/Environmental Clearance have been obtained from local authorities and approval of building plan is in progress with Greater Noida Authority. Since, the construction of barracks were completed in January 2010 and sanction for development & Bulk Services (Civil) were received on 03/12/2009 but as per MoU completion period for completion of work of development & Bulk Services (civil) was 24 months. In view of taking proper utility of these constructed barracks for Jawans, expenditure of ₹ 4.22 lakh have been expended towards development & Bulk Services (Civil) to save the damage & better life of constructed structure.

Thus, it was evident from above that the work sanctioned in January 2007 for ₹ 14.48 crore which was due to be completed by June 2008 was finally completed in January 2010 with a final expenditure of ₹ 17.49 crore which resulted in not only time overrun of 18 months but also cost overrun of ₹ 3.01 crore. Further, barracks handed over to CRPF by NBCC were without basic amenities like electricity and sewage system etc. due to which jawans had to manage with temporary arrangements.

5.9 CONCLUSION

From a comparative analysis of executing agencies based on various parameters to assess the construction activities, it was seen that the agencies were at par when compared on different parameter of efficiencies. Delays in preparation of preliminary estimate and in tendering process were seen in all PWOs, while CPWD showed maximum aberrations as it was the largest PWO and was executing the maximum number of works. Construction works undertaken by CPWD showed the maximum cases of cost escalation and also the highest savings, indicating a less than satisfactory financial planning of works. More deviations, extra items and substituted items were noticed in CPWD followed by departmental works. One area where CAPFs can improve without external interference is the works undertaken departmentally.

RECOMMENDATION:

CAPFs may set standards for construction works done departmentally, as it was not better in comparison to other PWOs in terms of planning and execution of works.

