

Chapter 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 GENERAL

The study of Primary and Secondary data, observations, and the analysis reveal some important results about the work management practices in CPWD. The study clearly found that the hurried start of works without adequate planning is a common practise in CPWD where a conviction runs large that let us somehow make a early hurried beginning and things shall fall in place once we are in the field. This tendency comes with a pack of many detrimental implications including legal disputes. Govt. is on weak footing in such cases and suffers heavily in the end; where the hasty start costs Govt. in many ways. The implications generally are:

- Renders holistic construction planning non-feasible
- Execution delays
- Cost escalations
- Post contractual changes –extra and substituted items
- Contractual disputes and litigations
- Arbitrations and court matters
- Consequent losses
- Project suffers on all counts - Time, Cost and Quality

5.2 CONCLUSIONS TO RESEARCH QUESTIONS

Having established the damaging effects of the prevailing practice of hurried start of works without adequate planning, the reasons and responses for such practise, following conclusions are drawn in respect of the four research questions:

5.2.1 Research Question 1 *Is the Detailed planning process before Award of Works given a miss in most construction works in CPWD? If yes, what are the reasons that push CPWD to cut short this process to make half prepared early start?*

It is found that the general guidelines about detailed planning before preparation of NIT and call of tenders are provided in CPWD Works Manual and the provisions and its importance is well known to the CPWD officials. Despite these guidelines, this stipulation is not followed in most works. After the Administrative approval is obtained, NIT is prepared based on minimum available drawings and details, with the mindset that the remaining details would be worked out in the simultaneous process and works are awarded based on these tentative estimates. It is widely believed that any changes/variations/extra items etc. would be taken care by clause 12 of the contracts and thereby we would be able to save time by advancing the date of start of work on ground.

Following reasons have been assessed for this kind of practise in the Organisation:

- a) After the Administrative approval is obtained, there is always a pressure from the user ministry for early start of work .These ministries maintain that since they have already given sanction, why they see no activity on ground. This puts CPWD in a position where it tries to find a way for early start of work with the minimum plans of work at hand and with the understanding that remaining drawings shall be done simultaneously.
- b) There is comparatively lesser interest and in general there is lack of will of engineers to do planning work. This has perhaps built into the organisation over the years as there is lesser recognition and motivation for planning /design work. It is the field execution and contract management which commands respect and recognition and design/planning is considered as passive and dull work.
- c) The initial phase of planning requires active and dominant role by Architects. .However, the strength and infrastructure of Architectural offices is poor and they are not being able to cope with the workload.
- d) The call of tenders and field execution is the primary responsibility of field division and field circle and the primary responsibility for planning activities is with the Senior Architect and the SE (planning).This dual and divided responsibilities allow space for shifting blame on one another within the department

5.2.2 Research Question 2 : Is the resulting damage in terms of delays during execution more than the time saved in doing early start?

Though the action to advance call of tenders in anticipation of complete planning /detailing is done in good faith that we would save time by being ready with the execution agency in the mean time, in most cases this haste proves counter-productive .Cutting an effort (of at most three months) to complete planning process at initial stage eventually leads to many contractual disputes and difficulties leading to much more resultant time loss in completing the project. **The ratio of resultant time lost to the initial time cut has been found to be even more than 3:1 in most cases.**

Thus the entire wisdom of cutting time and showing haste in the initial stage gets defeated and challenged.

5.2.3 Research Question 3 : What is the relation between 'Hasty Early Start' and 'Occurrence of Litigation' in CPWD? How much of loss due to such litigations can be attributed to Inadequate planning (Hasty early start)?

There is a clear and positive relation between the occurrence of litigations and the practise of hasty ill-prepared start of work. The study of arbitration awards clearly establishes this relation. Having entered into a legal contract

agreement with a private Agency, Govt. Is liable to fulfil its contractual obligations and is expected to give the requisite details and drawings and decisions in time so that the agency can accordingly plan its resources for execution of work. What happens is that since the department is not ready with the complete details, it follows the practise of giving drawings and details in piece-meal stages. This starts hindering the work as the agency is not able to plan its full strength.

Even if, the agency does not wish to deploy more resources, it gets an alibi for delivering slow progress on the ground that all the drawings have not been provided to them. The contract gets extended beyond stipulated date of completion in almost all cases and the blame for such delay is easily established on the part of the department as Extension of time is granted to the agency without levy of compensation given the various hindrances caused by the department.

This sets a stage when the contractor agency can easily make claims that he has deployed his staff, establishment and machinery for a longer period of time than was contracted and further he has suffered on account of escalation in prices also. The agency places such claims before the process of arbitration as per clause 25 of the agreement. In addition, certain other disputes also crop up as a result of large scale deviation in contracts as the rates of extra items, substituted items; deviated items always remain a wide area of disputes.

Though the quantification of results is difficult as it would vary with each work yet with the study of arbitration awards, a broad generalisation can be made that an amount of 5-20% of tendered amount is lost by Govt. due to the arbitration Awards.

There are, of course, other reasons also leading to arbitration disputes and awards which are not attributable to inadequate planning but the largest contributing factor has been nothing but the inadequate planning and hasty ill-prepared start. **It is seen that factor as large as 50% -75% of Award amount is to be attributed to the factors which are directly and indirectly related to the fact that the works were awarded without adequate planning and preparedness.**

5.2.4 Research Question 4 : Is the present Institutional arrangement in CPWD compatible for ensuring detailed planning before award of works? If not, what are the corrections required to build this into its practice?

CPWD is an age old organisation with well established systems and checks. There are clear guidelines already available which specify and stage the requirements of preliminary planning, detailed planning and so on. , However,

in the last decade or so, two broad changes have marked the construction process:

- (a) Increasing requirement of various services in works particularly buildings requiring higher level of planning and more so their integration.
- (b) It has become the need of the hour to do field execution at a fast pace to maximise returns for all the stake holders. With the use of construction machinery and technology, speedy field execution has largely been adopted in practice. Thus, once the work is started at site, there is little time for planning and any lack of preparedness / planning delays and damages the project in many ways.

These requirements have dominated the need to revisit the existing arrangements and to suggest possible corrections/improvements.

5.3 RECOMMENDATIONS

- 1) The starting point of taking up a project in CPWD is the preparation of a preliminary estimate to obtain the sanction from the User Ministry. In this estimate, CPWD is required to mention expected time to be taken for the project. It would be advisable if a separate and realistic reasonable time is mentioned for planning work as well. This would make the User ministry and the CPWD officials aware and duty bound to respect this time schedule and this would also prevent undue pressure from User ministry