

CHAPTER II : WORKS PLANNING

Audit objectives: To examine whether planning for designing, preparing estimates and execution of road projects was in accordance with the requirements.

2 Planning Activities

With a view to have a coordinated approach and time bound execution of works for 61 ICBRs, the following measures were projected/adopted by the Ministry of Defence (MoD) in 2006/ 2009 to counter the major impediments adversely affecting the progress of road works, as these roads were meant to meet the requirement of the Army, ITBP and civil population:

- i) A special head of account was approved to facilitate adequate funding in respect of China Study Group (CSG) roads in 2006,
- ii) Time bound environment/ wildlife clearance of all pending high priority roads,
- iii) Establishment of single window system in each State to eliminate procedural delays,
- iv) Raising GS fund allotment annually to the tune of ₹ 3600 crore during the first three years from 2010 onwards to be treated as non-lapsable for next five years;
- v) Funds for GS works to be provided under MoD Budget instead of Ministry of Road Transport and Highways (MoRTH).

We have examined the aspects of planning of the jobs sanctioned for the 24 selected roads and found shortcomings/ deficiencies in planning viz. inadequate Reconnaissance, Survey and Trace Cut (RSTC) and delayed approval of Annual Works Plan (AWP) adversely impacting the progress of ICBRs as described in the succeeding paragraphs:

2.1 Inadequate Reconnaissance, Survey and Trace Cut

After inclusion of the road in BRDB programme², Reconnaissance, Survey and Trace Cut (RSTC) is conducted with the objective to collect sufficient data to

²Inclusion of a road in BRDB programme means that the complete project related to construction of the road has been entrusted to BRO for execution.

determine the route alignment and prepare the project documents and approximate Project Estimates. The efficacy of the road project is based on quality of RSTC as the estimate is prepared on the basis of survey made. We observed instances wherein the gradient, soil classification, alignment of the road taken at the time of carrying out RSTC were at wide variance with the conditions encountered during the execution as discussed in the paragraphs 3.5 (C) and 3.6. These variances adversely affected the execution of the ICBRs and led to delay as well as cost over-runs.

DGBR stated (July 2016) that the RSTC on the new road forms the backbone on which apart from length/alignment, the strata and quantities are based and finally estimates prepared and sanctions accorded. He agreed with audit points that the RSTC carried out earlier were not exhaustive and attributed the limitations in achieving the proper RSTC to hostile terrain, staff shortage of JEs/supervisory staff besides technology. Further it was stated that the rate per km fixed for RSTC and timeframe/ PDC by which RSTC should be completed is so impractical that even completing the same by sitting in an office by reading map at times becomes more expensive and time consuming. He has further stated that taking lessons from the past when vintage technology was adopted for undertaking RSTC works which in turn resulted in serious compromises in quality of RSTC works, the department is going in a big way in adopting the modern technology like LiDAR³ and high resolution space photography *etc* to finalise the alignment. Plan is also under consideration to train some staff in these modern techniques and possibly inducting some modern equipment in the second phase. Non-availability of adequate time frame for RSTC reflects lack of due diligence while fixing RSTC timeframe/ PDC. Such casual approach in fixing time frame/PDC is fraught with risk of rendering these time frames purposeless.

2.2 Delay in approval of Annual Works Plan (AWP)

AWP which is the basic plan document, approved by BRDB, reflects the targets of works to be executed by BRO during the year, which is carved out of the Long Term Roll On Works Plan. Allotment of funds, procurement of plants and stores and mobilization of manpower are based on the AWP. As stated by DGBR, the approval by BRDB should normally take one month. Demands for grants and budgetary allocations are to be made based on the approved AWP. A review of the concerned documents, however, revealed that there were delays in submission and approval of AWP, as shown in **Table-3** below:

³LiDAR (Light imaging Detection And Ranging) is a surveying method that measures distance to a target by eliminating that target with a laser light.

Table- 3: Dates of submission and approval of AWP

Year	Due date of submission of AWP	Date of sending the AWP by DGBR for approval	Date of approval of the AWP by BRDB
2012-13	October, 2011	24 January 2012	30 March 2012
2013-14	October, 2012	15 January 2013	26 April & 23 May 2013
2014-15	October, 2013	07 January 2014	17 April 2014
2015-16	October, 2014	20 January 2015	17 April 2015

Thus, Budget Estimates (BEs) for each year were made on an *ad-hoc* basis and the jobs were executed even before the approval of AWP by the BRDB basing it on the AWP projections.