

OVERVIEW

The National Highways Authority of India (Authority) was constituted with a mandate to upgrade the existing two-lane roads into four/six-lane high density corridors under National Highways Development Programme (NHDP), in phases. In Phase-I, 6359 Km. of existing roads were to be upgraded by June 2004 at an estimated cost of Rs.30,300 crore. To leverage scarce budgetary resources, the Government opted for private sector participation in execution of the projects through Build, Operate and Transfer (BOT) mode. Accordingly, 17 projects were opened for private sector participation between March 1998 and April 2003.

Although time and cost were key factors for successful implementation of NHDP, the Authority did not prepare a corporate or strategic plan to monitor the same. This coupled with delays in award of work and in acquisition of land, and issue of change of scope orders during execution led to delay in completion of the projects. The Authority could complete only five of the 17 BOT projects within the time schedule prescribed. The Authority did not have any written criteria on the basis of which to assign a particular project for execution under BOT-Toll or BOT-Annuity arrangement.

The Audit observations mentioned in this Performance Audit Report are based on the test-check of eight BOT projects (four each of BOT-Toll and BOT-Annuity projects) and quality tests conducted by CRRI in six projects. The project-wise findings are detailed below:

A) BOT-Toll projects

1. Satara-Kagal

- The Authority did not prepare the DPR for this project.
- The completion of this project was delayed by 20 months due to execution of additional items of work and deficient performance of the Concessionaire.
- The independent consultant issued provisional completion certificate without conducting final tests and without obtaining 'as-built' drawings from the Concessionaire.
- The surface condition of the road was satisfactory at some locations while distresses like cracking, raveling, shoving and bleeding were observed in many locations. Roughness values in 164 out of 266 locations test-checked were within the 'desirable' level and in the remaining locations they were within the 'acceptable' level stipulated in the concession agreement. Deflection values were within the 'acceptable' level in all the sections test-checked. The combined thickness of wet mix macadam and granular sub-base layers did not comply with the specifications in any of the five test pits.
- The Authority did not levy penalties amounting to Rs.16.05 crore for delays in project completion, non-completion of punch-list items and non-achievement of individual milestones.

- The Authority did not recover from the Concessionaire Rs.8.79 crore being the remuneration paid to the independent consultant as per the provisions of the agreement resulting in loss of interest of Rs.3.89 crore.

2. Delhi-Gurgaon

- The completion of this project was delayed by 42 months beyond the scheduled completion date of June 2004 due to change in mode of execution from Special Purpose Vehicle to BOT-Toll, subsequent delay in award of concession and the delay in issuing change of scope orders valuing Rs.146.62 crore.
- The Detailed Project Report (DPR) of this project was deficient on many counts which resulted in execution of these items under change of scope orders for Rs.146.62 crore constituting 21 *per cent* of the project cost.
- The Authority did not have a system to compute the reasonable concession period. This resulted in fixation of a longer concession period of 20 years against a reasonable concession period of 14 years. During the extended concession period of six years, the Concessionaire would gain Rs.187.77 crore.
- The delay of 26 months in issuing orders for change of scope of work by the Authority delayed completion of the project.
- The condition of the road surface was good and no distresses were found. The combined thickness of wet mix macadam and granular sub-base layers did not comply with the specifications in three out of six pits test-checked.

3. Jaipur-Kishangarh

- The Authority did not prepare the DPR for this project.
- The Authority did not have a system to compute the concession period fairly. This resulted in fixation of a longer concession period of 20 years against the reasonable concession period of 12 years. During the extended concession period of eight years, the Concessionaire would gain Rs.121.63 crore.
- The entire road surface was in satisfactory condition except at some locations where rutting, shoving and cracks were seen. Roughness values in 168 out of 180 locations test-checked were within the 'desirable' level and in the remaining locations they were within the 'acceptable' level stipulated in the concession agreement. Deflection values in 11 out of 18 sections test-checked were more than the 'acceptable' level stipulated in the concession agreement requiring immediate overlay. The combined thickness of wet mix macadam and granular sub-base layers did not comply with the specifications in three out of six pits test-checked.

4. Tada-Nellore

- The Authority issued final completion certificate delinking 30 items included in the original scope of work, the cost of which has not been recovered from the Concessionaire.

- The Concessionaire was allowed to run restaurants, dhabas along the project site without paying any rent.

B. BOT-Annuity projects

- In all the four Annuity projects, the Authority failed to incorporate a clause in the concession agreement for recovery of penalty towards non-achievement of financial closure and target dates for achievement of individual milestones.
- In all the four Annuity projects test-checked, there were delays in commencement of toll collection after completion of the project resulting in loss of toll revenue of Rs.23.89 crore. The Authority, while fixing the toll rate for annuity projects, did not adopt latest wholesale price index available at the time of sending draft toll notification to the Ministry, resulting in loss of toll revenue of Rs.22.73 crore in three annuity projects.

1. Tambaram-Tindivanam

- The total project cost estimated by the DPR consultant exceeded the estimates of the lowest bidder by 33 *per cent* indicating unrealistic estimation. The DPR projections were deficient as it did not take into consideration the demands of local people, location of bus shelters and provision for capping of kerb which had to be subsequently accommodated through change of scope orders.
- The surface condition of the road varied considerably between various sub-stretches. Severe bleeding, rutting and displacement of pavement markings were noticed in some sub-stretches. Roughness values in all the 185 locations test-checked were within the 'acceptable' level stipulated in the concession agreement. Deflection values in 5 out of 17 sections test-checked were more than the 'acceptable' level stipulated in the concession agreement. The combined thickness of wet mix macadam and granular sub-base layers did not comply with the specifications in two out of five pits test-checked. The thickness of bituminous layer did not comply with the agreement specification of 190 mm and deficiency ranged between 8 mm and 20 mm.
- The Authority extended undue benefit of Rs.4.02 crore to the Concessionaire due to adoption of lower rate of interest on recovery of cost of deleted item.
- There was a leakage of toll collection of Rs.21.98 crore due to deficient performance by the toll collecting agency.

2. Tuni-Ankapalli

- The surface condition of the road was satisfactory at some locations while distresses like shoving, bleeding and heaving were observed at many locations besides cracks and rutting at some locations. There were no potholes in the entire stretch of the road. Roughness values in all 120 locations test-checked were within the 'acceptable' level stipulated in the concession agreement. Deflection values in two out of eight sections test-checked were more than the 'acceptable' level stipulated in the concession

agreement. The combined thickness of wet mix macadam and granular sub-base layers did not comply with the specifications in two out of four pits test-checked.

- The Independent Consultant did not appoint any team leader for this project as per their terms of reference and the Authority allowed the Deputy Team Leader to act as the team leader till the project completion.

3. Panagarh-Palsit

- Cracks and patch repairs were found to be less than five *per cent* implying good maintenance. Roughness value in one out of 132 locations test-checked was within the 'desirable' level and in the remaining locations they were within the 'acceptable' level stipulated in the concession agreement. Deflection values in 10 out of 12 sections test-checked were more than the 'acceptable' level stipulated in the concession agreement requiring immediate overlay. The combined thickness of wet mix macadam and granular sub-base layers did not comply with the specifications in two out of five pits test-checked.
- The Authority's failure to adjust the time required for execution of deleted items in original time schedule and erroneous computation of extension of time due to delay in handing over site, resulted in non recovery of penalty of Rs.8.75 crore. The concession agreement for this project did not contain a clause for levy of penalty for failure to complete the punch-list items within the stipulated period.
- There was an estimated revenue loss of Rs.40.42 crore during the period August 2005 to December 2006 due to absence of toll plaza within the project road.

4. Palsit-Dankuni

- The Authority failed to take timely action to award the concession agreement and this resulted in a delay of 11 months at the award stage. There was a further delay of four months in execution of the project.
- The Authority extended unintended benefit of Rs.3.92 crore to the Concessionaire for use of granular sand instead of earth, despite the fact that the concession agreement stipulated that the Concessionaire should make his own arrangement for all materials required.
- The concession agreement for this project did not contain a clause for levy of penalty for failure to complete the punch-list items within the stipulated period.