



CHAPTER 4

Chapter 4

4. Performance Audit relating to State Public Sector Undertakings (other than Power Sector)

4.1 Performance Audit on implementation of road projects on Build Operate Transfer mode by Madhya Pradesh Road Development Corporation Limited

Introduction

4.1.1 Madhya Pradesh Road Development Corporation Limited (Company) is responsible for construction, up-gradation, operation and maintenance of entrusted National Highways (NH) and Major District Roads (MDR) in addition to all the State Highways (SH) in the State of Madhya Pradesh. Road projects under Public Private Partnership (PPP) arrangement on Build Operate and Transfer (BOT) basis are executed by the Company under BOT-Toll, BOT- Annuity and BOT- Toll+Annuity modes, as detailed in Table 4.1.1:

Table 4.1.1 Description of BOT Modes

BOT Mode	Description
Toll	Government of India and GoMP provides Viability Gap Funding in the form of Grant to or collects Premium from the Concessionaire who constructs the road, operates it and collects the toll for recovery of project cost during the predefined Concession Period.
Annuity	Concessionaire executes the work and GoMP pays the project cost in the form of six-monthly annuities for the predefined time period of 13 years.
Toll+Annuity	GoMP pays the predetermined six-monthly Annuity to the Concessionaire for 13 years, who also collects the toll during the Concession Period.

During 2013-18, the Company completed 48 BOT road projects (72 roads of 3,004.78 km length costing ₹ 6,605.04 crore) and terminated 12 BOT road projects (19 roads of 1,035.42 km length costing ₹ 4,136.22 crore) before completion as detailed in Table 4.1.2:

Table 4.1.2 Details of projects executed by the Company

Type of Road	BOT Mode	Total Projects			
		No. of Projects	No. of Roads	Length (Kms)	Project Cost (₹ in crore)
Completed Projects					
MDR	Annuity	14	37	1,110.20	1,702.11
	Toll	1	1	38.23	96.73
	Toll+Annuity	9	9	392.46	730.18
Sub-total		24	47	1,540.89	2,529.02
SH	Annuity	1	1	8.93	16.00
	Toll	7	7	448.10	1,045.70
	Toll+Annuity	13	14	748.56	1,742.12
Sub-total		21	22	1,205.59	2,803.82
NH	Toll	3	3	258.30	1,272.20
Sub-total		3	3	258.30	1,272.20
Total Completed Projects		48	72	3,004.78	6,605.04

Type of Road	BOT Mode	Total Projects			
		No. of Projects	No. of Roads	Length (Kms)	Project Cost (₹ in crore)
Terminated Projects					
MDR	Annuity	3	10	229.99	368.34
	Toll+Annuity	1	1	46.98	97.77
Sub-total		4	11	276.97	466.11
SH	Annuity	1	1	9.34	47.56
	Toll	2	2	180.10	328.55
	Toll+Annuity	2	2	129.16	242.65
Sub-total		5	5	318.60	618.76
NH	Toll	3	3	439.84	3,051.35
Sub-total		3	3	439.84	3,051.35
Total Terminated Projects		12	19	1,035.42	4,136.22
Grand Total		60	91	4,040.20	10,741.26

Organisational Setup

4.1.2 The Company works under the overall administrative control of Madhya Pradesh Public Works Department (MPPWD), Government of Madhya Pradesh (GoMP). Management of the Company is vested with the Board of Directors comprising the Chairman (Chief Minister of Madhya Pradesh), two vice-chairmen (Minister for MPPWD and Chief Secretary, GoMP), Managing Director (MD) and six other Directors. Day-to-day management of the Company is looked after by the MD, who is assisted by Engineer-in-Chief, five Chief Engineers, six Deputy General Managers, six Assistant General Managers (AGMs) and six Managers at Headquarters as depicted in *Annexure-4.1*.

The Company has 13 Divisional Offices¹ headed by Divisional Managers, who are responsible for monitoring execution of road projects in respective divisions. They are assisted by AGMs, Managers and other supporting staff.

Audit Objectives

4.1.3 The Performance Audit was conducted to ascertain whether:

- Study for selection of road projects was made on realistic basis and estimates were prepared as per guidelines of GoMP and Ministry of Road Transport and Highways (MoRTH);
- Selection of Concessionaires were made after carrying out due diligence;
- Execution of works was carried out by Concessionaires economically and efficiently;
- Funding of BOT projects was economical and efficient; and
- Monitoring of the projects to achieve the intended objective was effective.

Audit Criteria

4.1.4 The audit findings are based on the criteria derived from the following:

¹ Bhopal, Narmadapuram, Indore, Dhar, Ujjain, Rewa, Sidhi, Sagar, Chhindwara, Gwalior, Jabalpur, Shahdol and Chambal.

- Guidelines issued by Planning Commission, Government of India (GoI), MoRTH and GoMP related to BOT road projects;
- Provisions contained in Model Documents of Request for Proposal (RFP), Request for Qualification (RFQ) and Concession Agreements issued by Planning Commission, GoI;
- Provisions of Madhya Pradesh Financial Code and Madhya Pradesh Works Department Manual and instructions issued by Finance Department, GoMP for implementation of road projects;
- Provisions of Indian Road Congress (IRC) codes issued by MoRTH, GoI; and
- Provisions of Institutional Mechanism for Monitoring of PPP Projects issued by Planning Commission, GoI.

Audit scope and methodology

4.1.5 A review on 'Evaluation and Management of Build, Operate and Transfer mode in Madhya Pradesh Road Development Corporation Limited' was featured in Audit Report 2012-13. There were five recommendations made by Audit in the review, out of which, the Company has taken corrective action on one recommendation. The Committee on Public Undertaking has discussed the review on 21 September 2016 and its recommendations are awaited (August 2019).

In this Performance Audit, 16 out of 48 BOT road projects completed during 2013-18 (33.33 per cent) for up-gradation of 22 roads of 1,026.02 km length (34.15 per cent out of total length of 3,004.78 km of 48 projects) at a project cost of ₹ 2,590.52 crore (39.22 per cent out of total project cost of ₹ 6,605.04 crore of 48 projects) were selected for detailed Audit on the basis of stratified random sampling method with help of IDEA software, subject to minimum of at least one project from each strata/ sub-category². Further, all the 12 terminated BOT road projects consisting of up-gradation of 19 roads of 1,035.42 km length at a project cost of ₹ 4,136.22 crore were test-checked in audit. The details of projects selected are detailed in *Annexure-4.2* and completed projects selected are summarised in Table 4.1.3:

Table 4.1.3 Details of projects selected in Performance Audit

Type of Road	BOT Mode	Projects selected in sample			
		No of Projects	No of Roads	Length (Kms)	Project Cost (₹ in crore)
Completed Projects					
MDR	Annuity	4	10	277.38	401.65
	Toll	1	1	38.23	96.73
	Toll+Annuity	3	3	143.81	283.71
Sub-total		8	14	459.42	782.09
SH	Annuity	1	1	8.93	16.00
	Toll	2	2	167.10	329.40
	Toll+Annuity	4	4	301.27	726.36
Sub-total		7	7	477.30	1,071.76
NH	Toll	1	1	89.30	736.70
Sub-total		1	1	89.30	736.70
Total Completed Projects		16	22	1,026.02	2,590.55
Total Terminated Projects		12	19	1,035.41	4,136.22
Grand Total		28	41	2,061.43	6,726.77

² Annuity-SH, Annuity-MDR, Toll+Annuity-SH, Toll+Annuity-MDR, Toll-NH, Toll-SH and Toll-MDR.

22 Audit observations have been taken on the basis of the test-check of above 28 BOT road projects. There may be similar errors/ omissions in other projects being implemented by the Company. The Company should therefore, internally examine all the other projects being executed.

During the Performance Audit, records related to planning, implementation, financial management and monitoring of BOT road project were examined and related information were collected from the Company's Headquarter office and the respective divisional offices. This included examination of Concession Agreements of 28 selected BOT road projects, consultancy contracts for 14³ out of 28 projects and joint physical verification of nine roads⁴.

The objectives, criteria and methodology of audit were discussed in the Entry Conference held on 01 November 2018 with the Principal Secretary, Finance Department, GoMP and MD of the Company. The draft report was issued to the MPPWD and the Company on 07 August 2019. The audit findings were also discussed in the Exit Conference held on 10 October 2019 with the Principal Secretary, MPPWD and MD of the Company. The Company submitted reply to the draft Performance Audit Report in September 2019 and November 2019, which were duly considered and incorporated in this Audit Report.

Audit acknowledges the co-operation extended by the Company and its officials in facilitating the conduct of the Performance Audit.

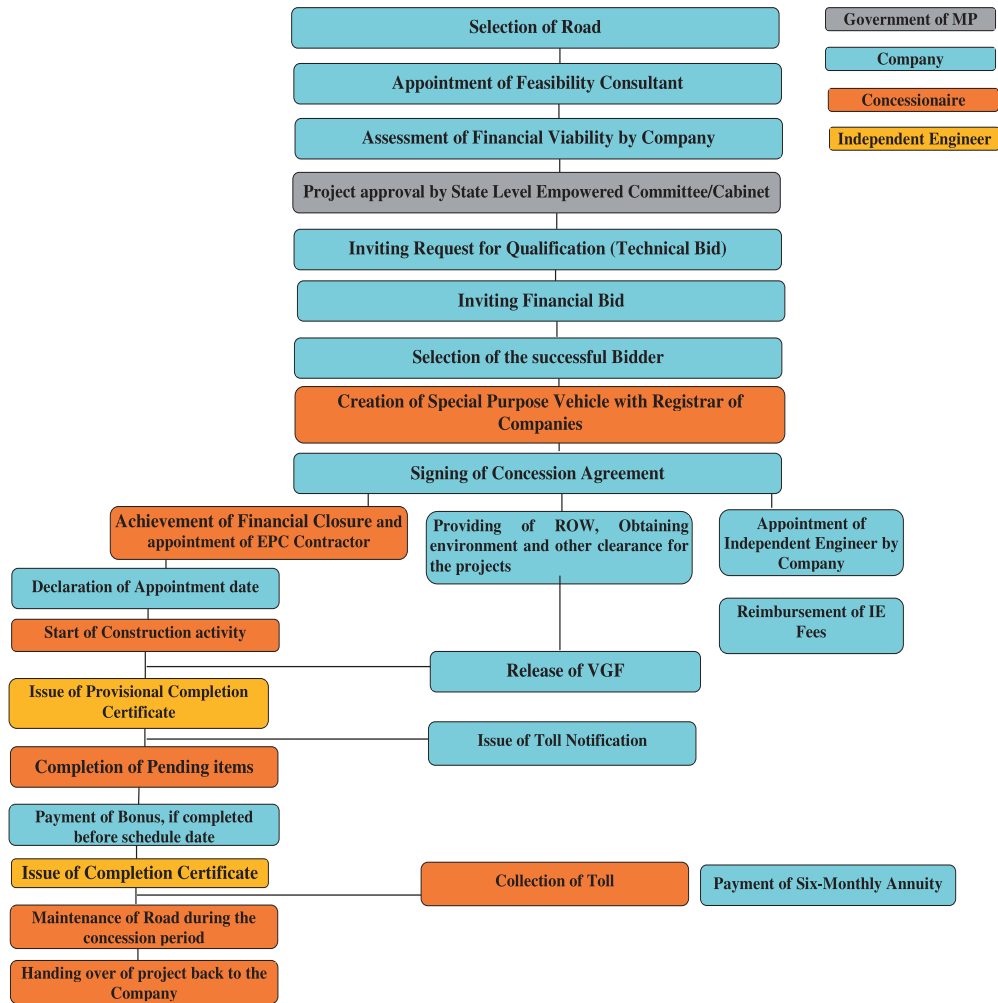
Audit findings

4.1.6 The roads under BOT mode were to be constructed under PPP arrangement between the Company and Concessionaire for development of roads projects, including the designing of BOT Projects, pre-project activities, tendering, contracting, execution of work, and monitoring of the projects. The detailed procedure, roles and responsibilities of the Company and the Concessionaire has been depicted in Chart 4.1.1:

³ Records relating to feasibility consultancy contracts of balance 14 projects were not made available.

⁴ Manawar-Singhana-Kukshi, Khandwa-Dehtalai-Burhanpur, Betul-Sarni-Parasia, Damoh-Pathariya-Gadakota, Garhakota-Rehli-Deori, Damoh-Katni, Rewa to Hanumana MP-UP border, Ujjain -Simhastha Bypass and Datia-Dinara.

Chart 4.1.1
Procedure for implementing BOT Projects under PPP arrangement



Audit observations noticed in compliance of the Audit Objectives are discussed in the following paragraphs.

Planning of BOT Projects

4.1.7 The first objective of this Performance Audit was to assess whether the selection of road projects was made on realistic basis and estimates were prepared as per guidelines of MoRTH and GoMP.

Audit requested the records relating to selection process of the BOT road projects, but no such records were made available to Audit. Hence, Audit could not assure due diligence in planning for road projects. Further, implementation modes of BOT road projects were decided by GoMP before Feasibility Reports for which no records for justification were furnished. Further, the Company adopted deficient Feasibility Reports without carrying out their independent verification through respective Divisional Offices. This has resulted in avoidable delay in completion of projects and increased the projects costs. Detailed audit findings are discussed in succeeding paragraphs.

Selection of BOT road projects

4.1.8 The Company is mandated to develop and maintain a safe and effective road network in the State. As per information provided by MPPWD, the Company conducts surveys on existing roads of MPPWD and on the basis of its traffic intensity, selects the roads for development/ upgradation on BOT mode. Further, MPPWD and the Company had jointly done categorisation⁵ of roads in 2015, for prioritising their selection on the basis of their condition.

Audit observed that the Company had awarded all the test-checked 28 BOT road projects (nine BOT road projects of 467.85 km were completed) before conducting categorisation of roads in 2015. Records which formed the basis for selection/ planning of the above road projects for taking up under BOT mode were not made available to Audit inspite of repeated requests.

Further, as per model Request for Proposal (RFP) for selection of consultant issued (March 2010) by Ministry of Finance, GoI, the consultant was required to assist in developing revenue model of BOT road project. However, MPPWD directed (August 2010) the Company to carry out Feasibility Study of twelve⁶ Major District Roads (MDRs) on a specific Annuity mode in advance, without assigning any reason. Records which formed the basis for deciding the mode of the above road projects were not made available to Audit. Accordingly, the Company appointed consultants for conducting Feasibility Study of above roads on BOT (Annuity) basis in seven⁷ divisions for which no justification was made available to Audit.

Therefore, justification for deciding on the selection of road projects and their implementation mode could not be assessed. Thus, Audit could not assure that the planning for these roads were made after following due diligence. Non-production of records to Audit may result in non-detection of serious irregularities, if any, committed by the respective authorities.

The Company stated (October 2019) that tenders for conducting Feasibility Studies were invited to find out any mode on which project is viable. The consultant ascertained the revenue model and financial viability of the project. The reply is factually incorrect as the Company had issued orders for conducting feasibility studies specifying revenue model in advance without obtaining any inputs from consultants.

The Company further stated (November 2019) that the road network of state was in pathetic condition. BOT projects were selected after detailed deliberation with public representative, higher authorities and field officers duly considering economic growth, traffic intensity and diversion of traffic after the construction. The projects were subsequently vetted by Directorate of Institutional Finance, GoMP and approved by State Level Empowered Committee (SLEC). Reply is not acceptable as no such records of detailed

⁵ 'A' category – Roads which are in good condition, 'B' category – Roads which are in poor condition, 'C' category – Roads which are in fair condition and require reconstruction next year, 'D' category – Roads on which repair/ renewal/ overlay work is required, and 'E' category – Roads which are under execution.

⁶ Ashok nagar-Vidisha, Mundi-Sanawad, Ashapur–Singhot, Badwah-Katkut, Dariyapur–Jasondhi–Maharashtra Border, Garakota-Deori, Rehli-Gorjhamar, Damoh-Garhakota, Ambah-Pinhat, Nadigaon-Seondha, Satanbada-Narwar and Tekna-Manpur.

⁷ Indore, Bhopal, Ujjain, Rewa, Sagar, Jabalpur and Gwalior Divisions.

deliberation with public representative, higher authorities and field officers were produced to Audit inspite of repeated requests and specific request during Exit Conference (October 2019).

Non-transparent planning process

4.1.9 As per the PPP guidelines issued (February 2008) by GoMP, Feasibility Study was to be conducted for selected/ planned roads before tendering.

The Company appointed (September 2010 to December 2011) three consultants for conducting feasibility studies of eight completed and six terminated BOT road projects⁸ at a cost of ₹ 2.33 crore. However, none of the consultants submitted Feasibility Reports within stipulated time of 150 days and the delay ranged from four months to 23 months (***Annexure-4.3***). The Company did not ensure timely submission of Feasibility Reports and took provisional data from consultants. The Company, concealed the fact of non-preparation of final Feasibility Report and adoption of provisional data for project formulation, without recording any reasons, proposed these 14 road projects for approval of State Level Empowered Committee⁹ (SLEC)/ State Cabinet. In case of Gwalior-VIII project, the proposal to SLEC was made (07 June 2011) 43 days before due date (26 August 2011) of submission of Feasibility Report.

In this regard, Audit observed that in case of five MDRs and one SH¹⁰, there were substantial variation (two to 1,650 *per cent* of the data of Feasibility Reports) in Traffic data, Financial Parameters¹¹, implementation mode, construction period, Annuity amount, Viability Gap Funding (VGF) amount etc. as submitted to SLEC vis-à-vis the data appearing in the Feasibility Report prepared by the Consultants as detailed in ***Annexure-4.4***. In case of Ujjain-SH2, Feasibility Consultant recommended to implement the project on Toll+Annuity mode, however, the Company submitted (January 2012) proposal to SLEC and accordingly invited bids on Toll mode. As no bids were received on Toll mode, proposal was revised by the Company on BOT (Toll + Annuity) Mode, which was approved by SLEC in February 2013.

Further, Notice Inviting Tender (NIT) for selection of Concessionaire for execution of 24 roads of 14 BOT road projects were floated 29 to 373 days before final Feasibility Reports. Out of these, in respect of 20 roads of 10 BOT road projects, the Company had even executed Concession Agreements 13 to 188 days before final Feasibility Report (***Annexure-4.3***).

⁸ Records relating to feasibility consultancy contracts of balance eight completed projects (Bhopal-1, Indore-3, Narmadapuram-SH1, Sagar-SH2, Ujjain-SH2, Rewa-NH1, Indore-SH1 and Rewa-SH4) and six terminated projects (Sagar-SH-37, Indore-SH-36, Jabalpur-NH-12, Rewa-NH-75 (1), Rewa-NH-75 (2) and SH-23) were not made available.

⁹ Finance Department, GoMP vide Circular No. 16 dated 04 September 2010 has constituted SLEC for approval of PPP projects at a project cost greater than ₹ 10 crore or where Viability Gap Funding is sought from GoI. SLEC is headed by Chief Secretary and its members are Principal Secretaries of Finance Department, Planning Department, Law Department, Sponsoring Department and Director of Institutional Finance.

¹⁰ MDRs: Mundi-Sanawad, Damoh-Garahkota, Rehli-Gorjhamar, Ashoknagar Vidisha and Dariyapur Jasondi. SH: Seoni Katangi.

¹¹ Traffic data, financial forecast, mode, construction period, etc. as submitted to SLEC vis-a-vis the data appearing in the Feasibility Report prepared by the Consultants.

This approach of getting approval on the basis of provisional data and non-disclosure of facts relating to non-submission of final Feasibility Report to SLEC/ State Cabinet, execution of Concession Agreements before receipt of final Feasibility Report indicates opaque planning process, which raises doubts on transparency and fair play, which led to termination of six road projects.

The Company stated (November 2019) that to improve the pathetic condition of road network in minimum possible time, every step was expedited. The consultants had identified the revenue model at the stage of draft Feasibility Report on the basis of actual data and accordingly proposals were put up to SLEC for approval and tenders were invited. The reply is not acceptable as terms of reference of consultant specifically provided that bid process for selection of Concessionaire would be taken up *after* submission of final Feasibility Report and project clearance. Further, the facts relating to non-submission of final Feasibility Report was not apprised to SLEC/ State Cabinet.

Adoption of Feasibility Reports without verification

4.1.10 As per Request for Proposal of consultancy contracts issued by the Company, Feasibility Report submitted by consultant shall *inter alia* contain estimated construction cost, operation and maintenance cost, traffic forecast, toll revenue, detailed financial analysis, financial viability of the project, etc. These details forms basis of finalisation of scope of work as per Schedules of Concession Agreements. During review of Feasibility Reports of selected BOT road projects, following deficiencies were noticed:

- In case of 13¹² out of 16 selected completed projects, consultants included Environmental Mitigation Cost¹³ in total project cost and added 25 *per cent* contingencies thereon, which was accepted by the Company. Whereas, in respect of other two¹⁴ projects, Environment Mitigation Cost was added after providing for contingencies of 25 *per cent*. Thus, the consultants did not follow uniform practice for treating the Environmental Mitigation Cost, which resulted in increase in total cost in to Concession Agreements by ₹ 7.43 crore.

The Company stated (September 2019) that environmental mitigation cost was included in total project cost. Reply does not explain the reasons for not following uniform practice for treating the environmental mitigation cost.

- Consultant of Gwalior-2 project ignored 7.9 kms of forest area in Feasibility Report and excluded 305 electric poles resulting in delay in obtaining forest clearance and increase of utility shifting cost by ₹ 1.33 crore. The Company has not taken any efforts for verification of the data of the Feasibility Report. The consultant's proposal on toll mode also proved wrong as no bid on toll mode was received, and the work was finally awarded

¹² Gwalior-2 (₹ 0.42 crore), Indore-1 (₹ 0.46 crore), Indore-2 (₹ 0.60 crore), Indore-3 (₹ 0.50 crore), Narmadapuram-SH1 (₹ 0.68 crore), Sagar-1 (₹ 0.14 crore), Sagar-3 (₹ 0.35 crore), Sagar-SH2 (₹ 0.46 crore), Ujjain-SH2 (₹ 0.42 crore), Ujjain-SH3 (₹ 0.14 crore), Bhopal-1 (₹ 0.27 crore), Rewa-NH1 (₹ 2.63 crore) and Rewa-SH4 (₹ 0.36 crore).

¹³ Environmental Mitigation Cost consists of cost for reduction of noise/ dust pollution, plantation of trees etc.

¹⁴ Gwalior-SH1 and Indore-SH1. Feasibility Reports of Indore-5 project not received.

(March 2013) on Toll+Annuity mode resulting in avoidable delay of 22 months¹⁵.

The Company accepted (September 2019) that Feasibility Reports are not detailed project report. In Exit Conference (October 2019) Principal Secretary assured that in future penal action would be taken against consultants for deficient Feasibility Reports. However, the Company stated (November 2019) that final Feasibility Reports were verified and vetted by the concerned Divisional Managers. Reply is not acceptable as even after verification by concerned Divisional Managers, forest area of 7.9 kms and 305 electric poles were overlooked.

- Similarly, Feasibility Report of Narmadapuram-SH1 project was prepared (June 2010) for Regular Contract (Asian Development Bank) and after change of implementation mode to BOT (Toll) in May 2011, no separate Feasibility Report was prepared. As the Concessionaire of the project failed to achieve Financial Closure, the Concession Agreement was terminated and even after re-tendering, no bids were received on Toll mode. The project was finally awarded (May 2013) after change of mode to Toll+Annuity. In this regard, Audit noticed that Traffic projections in Feasibility Report was abnormally high. Average Daily Traffic for April 2017 was projected as 12,877, whereas as per Toll data furnished to Audit, actual Average Daily Traffic in April 2017 was only 1,955 i.e. 15 per cent of projections. This indicated that due to adoption of higher traffic projections of Feasibility Report, the Company designed the project on Toll mode on which tendering was not successful and implementation mode was changed (May 2013) to Toll+Annuity, which delayed the project by three years.
- According to provisions of IRC, the thickness of pavement was to be decided on the basis of traffic calculated in terms of Million Standard Axles¹⁶ (MSA) and bearing capacity of Sub-grade in terms of California Bearing Ratio¹⁷ (CBR). However, Feasibility Consultant of Damoh-Katni road had considered the unwarranted excess thickness of pavement by 30 mm in 119.20 kms, which were adopted by the Company without any independent verification. This has contributed to extra project cost of ₹ 2.23 crore. The details are detailed in Table 4.1.4:

Table 4.1.4 Excess Thickness of pavement

Particulars	Million Standard Axles Calculated	California Bearing Ratio of Sub grade (in per cent)	Pavement Thickness (mm)
Considered by consultant	15.67/ 25.76	7	600
As required under IRC	15.67/ 25.76	11	570
Excess thickness of pavement			30 mm

¹⁵ Initial proposal on Toll mode was submitted by the Company to SLEC on 23 May 2011, which was based on recommendations of Feasibility Report.

¹⁶ Design life of a road is defined in terms of the cumulative number of million standard axles that can be carried before a major augmentation of the road is necessary.

¹⁷ Quality of soil of subgrade is measured in terms of CBR and is used for designing flexible pavements.

The Company stated (September 2019) that the Feasibility Report is indicative for BOT projects and the Concessionaire executes the work on the basis of their own survey and design. The reply does not explain the reasons for adoption of higher unwarranted thickness by the Consultant and the Company in violation of provisions of IRC.

- IRC: 64-1990 stipulates that a major arterial road should be designed on Level of Service-B¹⁸ (LOS-B) on the basis of design service volume¹⁹ at the end of its design life by projecting the present volume at an appropriate traffic growth rate. IRC: 37-2012, provides for consideration of annual growth rate of traffic at 5 per cent. Daily traffic of Bamkhalafata-Dogawa (MDR-23.67 km) road at the end of concession period (2026) was projected as 1,556 PCUs, for which IRC specified construction of single lane (3.75 meter). However, Feasibility consultant recommended and the Company approved construction of 5.50 meters wide road (Intermediate Lane) without recording any reason for deviation from IRC.

Similarly, concession period of Ratlam–Sailana–Banswada (SH-43.58 km) road with paved shoulders²⁰ was reduced from 30 years to 15 years after change of mode to Toll+Annuity due to non-receipt of bid on toll mode²¹, but design service volume was not revised from 25,780 PCUs to 12,452 PCUs, for which, IRC provided for construction of two lane with earthen shoulders. However, Feasibility Consultant recommended and the Company approved construction of two Lane with paved shoulders without recording any reason for deviation from IRC. As a result, the Project costs were increased by ₹ 9.65 crore²² and consequent liability of higher Annuity.

The Company stated (May 2019) that traffic was projected as per actual traffic survey duly considering probable future growth of traffic after construction. As per the projections, road was viable for two lanes with paved shoulders.

The reply is not acceptable as it does not explain, why the excess width and higher traffic growth rates were adopted in contravention of the provisions of IRC.

Thus, the Company adopted deficient Feasibility Reports without carrying out their independent verification through respective Divisional Offices. This has resulted in avoidable delay in completion of projects and increase in projects costs as discussed above.

¹⁸ Represents stable flow of traffic with reasonable freedom to select desired speed and manoeuvre within the traffic stream. Level of comfort and convenience provided is somewhat less than Level of Service-A, because the presence of other vehicles in the traffic affects individual behaviour.

¹⁹ Design Service Volume is defined as the maximum hourly volume of traffic at which vehicles can reasonably be expected to ply on roadway during a given time period.

²⁰ Shoulder is extended construction on both sides of road for additional safety to road users. The construction may consist of earthen material (earthen shoulder), granular material (hard shoulder) or same material, which was used in construction of road (paved shoulder).

²¹ Approved by SLEC in February 2012.

²² Indore-3: ₹ 8.20 crore and Ujjain-SH2: ₹ 1.45 crore.

Recommendations:

The Company should:

- 1) Select road projects and decide implementation mode of BOT projects on the basis of categorisation of roads and Feasibility Reports;**
- 2) Verify data of Feasibility Reports such as forest area, utility shifting and traffic projections from the Divisional Offices of the Company; and**
- 3) Record justification for deviations from provisions of IRC.**

Contract Management

4.1.11 The second objective of this Performance Audit was to assess whether selection of Concessionaires was made after carrying out due diligence.

For selection of Concessionaires, the Company floats Request for Qualification (RFQ). Audit analysed the tendering and contracting process of selected BOT road projects and observed that evaluation of RFQ of applicants was erroneous, unviable project was awarded on toll mode and six Annuity projects were awarded at higher Annuity than the recommendations of SLEC. Detailed audit findings are discussed in succeeding paragraphs.

Erroneous selection of Concessionaires

4.1.12 As per Clause 2.2.10 of RFQ, *each* member of a Consortium²³ applicant should substantially satisfy the pre-qualification requirements to the extent specified in Clause 2.2 (Eligibility of Applicants). Clause 2.2.2 (A) specified that during last five years the applicant should have executed projects for an amount more than twice the cost of project for which tenders are invited and Clause 2.2.2 (B) specified that *each* member of the Consortium should have a minimum Net Worth²⁴ of 12.50 *per cent* of Project Cost in the immediately preceding financial year.

BOT arrangement provides for appointment of Engineering, Procurement and Construction²⁵ (EPC) Contractor by the Concessionaire for construction of the roads in accordance with the provision of the Concession Agreement. As per Clause 2.25 of RFQ, EPC works of the project were to be executed only by the experienced contractors who have completed projects of minimum 20 *per cent* of the current project cost or ₹ 5 crore, whichever is lower.

A. Awarding of work to the ineligible Concessionaires

- In case of five²⁶ out of 12 terminated projects, M/s Concast Infratech Limited, who was a member of the Consortium applicant (May 2011 to February 2012), was not technically and financially qualified as it was

²³ Group of entities coming together to implement the Project.

²⁴ Sum of subscribed and paid up equity and reserves from which shall be deducted the sum of revaluation reserves, miscellaneous expenditure not written off and reserves not available for distribution to equity shareholders (Clause 2.2.4 of RFQ).

²⁵ Contracting arrangement for executing a project in prescribed time limit wherein the contractor is responsible for all the activities from design, procurement, construction to commissioning and handover of the project to the Company. Contract price is fixed and payments are made to the contractor on milestone completion basis.

²⁶ Gwalior-IX, Jabalpur-VI, Gwalior-SH-2, Indore-SH-36 and Gwalior-VIII.

incorporated in September 2010 only and had neither executed any projects nor had required net worth as per requirement of RFQ. However, the Company considered (October 2011 to May 2012) these consortiums as qualified and awarded the projects to them. Further, all these five projects were awarded to them without assessing their combined capacity to effectively undertake five projects simultaneously.

The EPC contractor appointed by the Concessionaires for execution of the above five projects and Rewa-NH-75(1) project was also M/s Concast Infratech Limited, which had no experience of completing projects of more than 20 per cent of project cost or of ₹ 5 crore. Concessionaire of Gwalior-VIII project introduced (May 2012) M/s Comex Infratech Pvt. Ltd. into the project SPV for strengthening of financial standing and to bring development expertise without any evaluation by the Company.

Selection of ineligible Concessionaires and allowing execution of works by ineligible EPC contractors had also contributed to the slow progress of works. As a result, the Company had to terminate (March 2015 to January 2018) all these six projects. Physical progress of the project at the time of termination ranged between 6.72 per cent and 56 per cent as detailed in **Annexure-4.5**. The balance works were re-awarded on EPC basis instead of BOT basis at an increased project cost by ₹ 236.18 crore²⁷. Had the Company implemented the Rewa-NH-75(1) project, being a project of National Highway Authority of India, it would have received Annual Grant of ₹ 34.80 crore from GoI for meeting the expenditure incurred on staff and office expenses. Thus, the objective of taking up projects on BOT mode was defeated.

In Exit Conference (October 2019), Principal Secretary (PWD) assured that in future, clauses in RFQ would be made clear by specifically mentioning technical and financial pre-qualification requirement for members of Consortium applicant.

- **Jabalpur-NH-12 (294.20 kms):** PPP cell of Department of Economic Affairs (DEA), GoI instructed (September 2012) the Company to unbundle the project into three packages of 100 Kms each for competitive responses. The Company had no experience of dealing with project above ₹ 736.70 crore. However, the Company, after clarifying DEA, obtained its approval for not unbundling the project. Accordingly, the Company approved floating the tender as a single project, however, experience criteria for technical qualification as per Clause 2.2.2 (A) of RFQ was fixed ₹ 2,485.96 crore (equal to the project cost being bid) instead of ₹ 4,971.92 crore, for the reason not on records.

Further, the Consortium, which has a member Company of Russian origin, *inter alia* claimed in RFQ document, erroneous experience of completing two projects²⁸ in last five years i.e. during 2007-12. However, the Chartered Accountant firm engaged by the Company, omitted to locate the fact that the applicant had not executed these projects in last five years. However according to website of that Company, both the projects were actually completed in 2003, i.e. prior to last five years, hence should not have been considered for

²⁷ From ₹ 854.83 crore to ₹ 1091.01 crore.

²⁸ Construction of Lefortovo Tunnel and construction of third transport ring of Moscow completed in 2003.

evaluating technical capacity. Recommendation of Chartered Accountant firm was accepted by the Company at face value without verification/ due diligence. As a result, the project was awarded (February 2014) to a Consortium having inadequate technical capacity of ₹ 3,361.47 crore²⁹.

As per Concession Agreement, the Concessionaire was required to achieve Financial Closure³⁰ within 180 days from the date of Concession Agreement. However, the Concessionaire failed to achieve Financial Closure and the Concession Agreement was terminated in April 2015 without any physical progress. Subsequently, GoI decided to take up the entire project on EPC basis instead of BOT basis at an increased project cost³¹ by ₹ 410.32 crore. Had the Company implemented the project, it would have received Annual Grant of ₹ 397.75 crore from GoI for meeting the expenditure incurred on staff and office expenses. The project was delayed by seven years and is still incomplete (March 2019). Thus, the objective of taking up project on BOT mode was defeated.

In Exit Conference (October 2019), Principal Secretary (PWD) assured that the Company will review the practice of outsourcing the evaluation work to Chartered Accountant firm.

- **Indore-SH1:** The Company fixed experience criteria for technical qualification as per Clause 2.2.2 (A) of RFQ as ₹ 227 crore instead of ₹ 454 crore, for the reason not on records. Audit noticed that the applicant, in RFQ document, *inter alia* claimed experience of completing two jointly executed projects for the full amount of payment and revenue instead of its proportionate share in the Special Purpose Vehicle (SPV) of these projects. The applicant also claimed experience of completing four projects for more amount than the amount certified by Chartered Accountant in RFQ document and was incurred beyond past five years. Further, average turnover of the applicant for last three years was ₹ 129.99 crore as against the requirement of ₹ 227 crore³².

In spite of that, the Tender Committee of the Company considered the Applicant as qualified and the work was awarded (July 2011) to a Concessionaire having inadequate technical capacity of ₹ 359.21 crore³³.

Further, PPP guidelines of GoMP provided that Internal Rate of Return (IRR) of a project to be viable should be more than 13 *per cent*. However, IRR of Indore-SH1 project was 12.26 *per cent*. In fact, while approving (February 2011) the project, GoMP mentioned that the traffic on the road is low and the project is not viable even after providing 40 *per cent* Viability Gap Funding (VGF) and approved to pay Deemed Shadow Fee³⁴ of ₹ 3.86 crore annually to the Concessionaire for 10 years, which was proposed

²⁹ Technical Capacity computed by Audit without considering both ineligible projects.

³⁰ Financial Closure means fulfilment of all conditions precedent to the availability of funds under the Financing Agreements.

³¹ From ₹ 2,485.95 crore to ₹ 2,896.28 crore.

³² As per GoMP guidelines, a bidder to be financially capable for bidding should have minimum average turnover for last three years to 100 *per cent* of project cost.

³³ Technical Capacity computed by Audit without considering the ineligible projects or part thereof.

³⁴ It is an option to the Authority to compensate the Concessionaire for loss of fee revenues from vehicles that are exempt from payment of fee under the Fee Rules.

to be funded through a separate grant. However, in the absence of approval of 'Deemed Shadow Fee' clause by Empowered Institution³⁵, the Company awarded the project on 29.23 *per cent*³⁶ VGF without 'Deemed Shadow Fee' clause, which has rendered the project unviable. As a result, the Concessionaire cited financial crunch, which contributed in non-achievement of the project milestones and led to delay in completion of the project by 23 months.

The Company stated (September 2019) that financial bid of the Concessionaire was approved (May 2011) by the tender committee after considering Deemed Shadow Fees of 8.63 *per cent* of project cost. Further, the bidders quoted the VGF as per their own financial assessment, hence, there is no reason to award the project on lower VGF and consequent financial crunch of the Concessionaire. Reply is not correct as inspite of being aware about unviability of the project without 'Deemed Shadow Fee', this clause was deleted by the Company from the RFP. Further, the Company has not offered its response on the issue of awarding the project to ineligible Concessionaire.

B. Failure to ensure minimum shareholding in Special Purpose Vehicles

As per RFQ, *each* member of the applicant Consortium should have a minimum of 26 *per cent* shareholding in Special Purpose Vehicle (SPV).

- **Rewa-NH-75 (2):** The Company did not ensure minimum 26 *per cent* shareholding in SPV by *each* member of the applicant Consortium. Further, IE informed (February 2016) to the Company that after start of work, Concessionaire has changed its EPC contractor. Therefore, the Company could not assess qualification of changed EPC contractor.

The EPC contractor of the Concessionaire stopped the work in August 2016 citing financial crisis. The Company terminated (May 2017) the Concession Agreement after financial and physical progress of ₹ 196.80 crore and 33.56 *per cent* respectively. Subsequently, GoI floated (November 2017) tenders for completion of balance 66.44 *per cent* work on EPC basis instead of BOT basis at a cost of ₹ 318.05 crore after transfer of project by the Company. Had the Company implemented the project, it would have received Annual Grant of ₹ 46.55 crore from GoI for meeting the expenditure incurred on staff and office expenses. Thus, the objective of taking up project on BOT mode was defeated.

The Company stated (September 2019) that based on the communication of the Concessionaire that shareholding of two individuals have been transferred to other member of the applicant Consortium, Concession Agreement was executed. Reply is not acceptable as actual transfer of minimum 26 *per cent* shares was not verified and ensured by the Company.

- **SH-23 and SH-54:** The Company had accepted formation of SPV with lower equity of ₹ 35.26 crore and ₹ 10 crore against the required equity of

³⁵ Empowered Institution means an institution, Company or inter-ministerial group designated by the Government for the purposes of VGF Scheme. It is headed by Additional Secretary and Director General, DEA.

³⁶ VGF of ₹ 66.36 crore was finalised for the project having project cost of ₹ 227 crore.

₹ 51.08 crore³⁷ and ₹ 72.44 crore³⁸ respectively. Further, Concessionaire of SH-23 project invested paid-up capital of only ₹ 17.63 crore³⁹ against the commitment of ₹ 35.26 crore. The Company ignored the delay in Financial Closure and allowed for execution of works and both the Concessionaires failed to achieve the milestones of works.

In the above two projects, the progress of work by the EPC contractors appointed by the Concessionaires was very slow and the work was stopped by them after completing 12.95 *per cent* and 56 *per cent* of work respectively citing financial crunch.

As a result, the Company terminated the Concession Agreements in January 2016 and November 2016 respectively. Balance works (87.05 *per cent* and 44 *per cent* respectively) were awarded on EPC basis instead of BOT basis at increased project cost by ₹ 97.67 crore⁴⁰.

The Company stated (September 2019) that in Concession Agreement there is no restriction imposed on paid up capital of the SPV. Reply is not acceptable as copy of Common Loan Agreement executed by the Concessionaire with Lenders was available with the Company, which specifically provided to maintain Debt-Equity ratio within a specified limit, which the Company failed to monitor and thus, the financial interest of the projects was not protected.

Award of work at higher Annuity

4.1.13 State Level Empowered Committee (SLEC) in its fifth meeting (April 2011), while approving BOT road projects on Annuity and Toll+Annuity basis, had instructed that the yearly Annuity amount should not be more than 16 *per cent* of their Project Cost. Further, during seventh SLEC meeting (July 2011), while approving BOT road projects on Annuity and Toll+Annuity basis, it was categorically mentioned by Directorate of Institutional Finance, GoMP that in order to maintain total Annuity payout in a year within 25 *per cent* of the plan ceiling of the department, there was need to take up these projects on an annual Annuity of less than 18 *per cent* of their project cost.

Audit observed that in four⁴¹ out of 12⁴² completed Annuity/ Toll+Annuity road projects, Tender Committee⁴³ of the Company had approved the projects (based on Annuity offer received in tendering) beyond (19.50 *per cent* to 20.40 *per cent* of Project Costs) the prescribed ceiling of 18 *per cent*. Annual Annuity commitment of the above projects was ₹ 61.28 crore, which was

³⁷ As per Clause 3.2 of Common Loan Agreement with Allahabad Bank, the Debt to Equity ratio was not to exceed 2.25:1 i.e. Equity should be 30 *per cent* of (Total Project Cost ₹ 194.81 crore less VGF ₹ 24.55 crore) = ₹ 51.08 crore.

³⁸ As per Clause 13.1 of Common Loan Agreement with Punjab National Bank, the Debt to Equity ratio was not to exceed 1.50:1 i.e. Equity should be 40 *per cent* of (Total Project Cost ₹ 211.60 crore less VGF ₹ 30.51 crore) = ₹ 72.44 crore.

³⁹ Verified by audit from master data of SPV from website of Ministry of Corporate Affairs.

⁴⁰ From ₹ 328.55 crore to ₹ 426.22 crore.

⁴¹ Bhopal-1, Indore-3, Indore-5 and Gwalior-SH1.

⁴² Out of 16 completed BOT road projects, 12 projects were on Annuity and Toll+Annuity mode and balance four projects were on Toll mode.

⁴³ Tender Committee of the Company is headed by Chief Secretary and its members are Principal Secretary (Finance), Principal Secretary (MPPWD) and Managing Director of the Company.

₹ 5.35 crore higher than the limit of 18 per cent of their project cost. Further analysis of the present value of future annuities for 13 years in respect of these project revealed that their present value was higher than their project cost, ranging from 26.79 per cent to 32.68 per cent. Hence, non-compliance to the limit of 18 per cent has resulted in excess Annuity liability of ₹ 69.55 crore⁴⁴ during the concession period of 13 years.

Similarly, in case of Sagar-3 and Sagar-SH2 projects, SLEC had approved (July 2011 and February 2013) yearly Annuity of ₹ 8.13 crore and ₹ 30.70 crore respectively. Here also, Audit observed that the Company, awarded the projects at higher yearly Annuity of ₹ 10.92 crore and ₹ 35.52 crore respectively, resulting in excess Annuity liability of ₹ 98.93 crore⁴⁵ during concession period of 13 years.

The Company stated (September 2019) that in BOT Annuity projects, Annuity is the bidding criteria for selection of the Concessionaire and bids received were competitive, reasonable and approved by Tender Committee. The reply is not acceptable as the Company had not approached SLEC for accepting higher Annuity bids than the approved limit.

Recommendation: The Company should ensure compliance of qualification criteria for selection of the Concessionaires and EPC contractors.

Project Management

4.1.14 The third objective of this Performance Audit was to assess whether execution of works was carried out by Concessionaires economically and efficiently.

Audit analysis of BOT projects revealed that there were delay in obtaining forest clearances and providing Right of Way (RoW) by the Company. Operation of Performance Security clause by the Company was deficient. Achievement of milestones and Financial Closure by the Concessionaires was delayed, for which damages were not recovered by the Company in time. Other issues like deficiencies in payment of early completion bonus, irregular release of VGF, avoidable payment for Change of Scope, excess collection of user fees, irregular issue of provisional completion certificate, and avoidable expenditure on repair and maintenance of roads were also noticed. Detailed audit findings are discussed in succeeding paragraphs.

Delay in achieving project milestones by the Concessionaire

4.1.15 The Concession Agreement provided 730 days' time period for completion of project in phased manner i.e. Project Milestones. If the Concessionaire fails to achieve any specified Project Milestone within 90 days from the stipulated date of achieving milestone, he shall pay Damages to the Company at the rate of 0.10 per cent of the amount of Performance Security for delay of each day until such Milestone is achieved. Further, as per Clause 31.3.1 of Concession Agreement, all payments and damages payable to

⁴⁴ ₹ 5.35 crore yearly Annuity x 13 years.

⁴⁵ Sagar-3 project - ₹ 2.79 crore x 13 years and Sagar-SH2 project - ₹ 4.82 crore x 13 years.

the Company were recoverable from the Escrow Account in the month when it is due.

In case of nine⁴⁶ out of 12 terminated BOT road projects (75 per cent projects) there were delays in achievement of project milestones ranging from two months (Gwalior-IX) to 34 months (SH-54). Similarly, in case of three⁴⁷ out of 16 completed BOT road projects (18.75 per cent projects) also there were delays in achievement of project milestones ranging from three months (Indore-SH1) to 52 months (Sagar-3). The details are furnished in **Annexure-4.6**. Delays were mainly due to stoppage/ slow progress of work by the Concessionaire (*Paragraph 4.1.12*) in case of seven projects⁴⁸, besides delay of one year to four years six months in providing RoW and forest clearance by the Company in case of five projects⁴⁹ (*Paragraph 4.1.20*).

Hence, in seven projects, despite of having Right of Way/ Forest Clearance and inspite of going for BOT mode, milestones were achieved by the Concessionaires with delays and the purpose of going for BOT was defeated. Hence, damages amounting to ₹ 53.84 crore were recoverable from the Concessionaires of the above seven projects for their default. However, the Company neither demanded, nor recovered, the damages for delay in achieving project milestones. This resulted in undue benefit of ₹ 53.84 crore to these seven Concessionaires. The Company also did not monitor Escrow Accounts of the above Concessionaires for recovery of the dues as discussed in *Paragraph 4.1.26*.

The Company stated (September 2019) that the projects have been terminated and damages for delay in achieving project milestones had been adjusted by encashing Performance Security. Reply is not acceptable as only reasons for termination was mentioned in the termination order without accounting for the damages recoverable. Further, the Company had even never demanded the damages for delay in achieving project milestones from the Concessionaires.

Irregularities in release of VGF

4.1.16 Government of India (GoI) notified (January 2006) a scheme for financial support to PPP projects. Under the scheme, Viability Gap Funding (VGF) was to be provided by GoI as a Capital Grant⁵⁰ to support PPP infrastructure projects with the objective of making the project commercially viable.

As per Clause 25 of the Concession Agreement, the Concessionaire becomes eligible for VGF only after expending its Equity in the project. It was to be disbursed by GoI/ GoMP on the recommendation of the Company, in proportion to loan disbursed by the Lenders under the Financing Agreements. Schedule-G of Model Concession Agreement (MCA) specified that financial progress/ expenditure incurred should not include advances and expenditure

⁴⁶ Chhindwara-MDR, Jabalpur-VI, Gwalior-VIII, Gwalior-SH-2, SH-54, Rewa-NH-75 (2), Gwalior-IX, Rewa-NH-75 (1) and Indore-SH-36.

⁴⁷ Rewa-SH4, Sagar-3 and Indore-SH1.

⁴⁸ Chhindwara-MDR, Jabalpur-VI, Gwalior-VIII, Gwalior-SH-2, SH-54, Indore-SH-36 and Sagar-3.

⁴⁹ Rewa-NH-75 (2), Gwalior-IX, Rewa-NH-75 (1), Rewa-SH4 and Indore-SH1.

⁵⁰ One-time or deferred grant equivalent to the lowest bid for capital subsidy, but subject to a maximum of 20 per cent of the total project cost.

on procurement of Plant and Machinery (Clause 3.2). Following observations in irregular release of VGF were, however, noticed in case of three out of eight VGF projects during Audit:

- In case of SH-54 project, out of total disbursed loan of ₹ 130 crore, the Concessionaire used ₹ 40 crore for procurement of plant and machinery and the Company recommended (May 2016) to GoI for release of first instalment of VGF amounting to ₹ 14.98 crore (total VGF amount was ₹ 30.50 crore). Accordingly, the Department of Economic Affairs (DEA), Ministry of Finance, GoI, released (June 2016) first instalment of VGF of ₹ 14.98 crore to the Concessionaire. Since procurement of plant and machinery was not a part of the project cost and was the responsibility of the EPC Contractor engaged by Concessionaire, he was not eligible for the proportionate VGF of ₹ 4.61 crore⁵¹.
- In respect of Indore-SH1 project, the Concessionaire claimed advances (ranging from ₹ 1.17 crore to ₹ 25.16 crore) as expenditure of the project and the Company accepted the same and recommended for release of VGF amounting to ₹ 12.39 crore prematurely. Even after completion of the project, an amount of ₹ 1.17 crore was lying with its EPC contractor unadjusted. Thus, corresponding VGF of ₹ 37.66 lakh⁵² was not due.
- In respect of Rewa-SH4 project, the Concessionaire had invested equity capital of ₹ 8.12 crore against the required investment of ₹ 40.56 crore. In spite of that, the Company recommended GoI for release of VGF of ₹ 34.68 crore to the Concessionaire, which was subsequently released. This entire release of VGF of ₹ 34.68 crore was irregular as the Concessionaire had not expended its entire Equity in the project.

The Company stated (September 2019) that VGF was released in proportion of the loan disbursed as certified by the Lead Financial Institution and Statutory Auditors (Chartered Accountant) of the Concessionaire. Reply is not acceptable as VGF was payable to the Concessionaire only after expending the Equity. Besides, the MCA had also specified that financial progress for the purpose of VGF should not include any kind of advances, which too was flouted by the Company's action.

Payment of bonus on account of early completion

4.1.17 As per the executed Concession Agreement⁵³, if the Concessionaire achieves provisional completion prior to scheduled date, he shall be entitled to receive Early Completion Bonus⁵⁴. The Company, entered into Concession Agreements for development of roads under BOT mode with scheduled completion of 730 days from Appointed Date in all the projects. Audit noticed the following deficiencies:

⁵¹ VGF disbursed: ₹ 14.98 crore x Cost of plant and machinery: ₹ 40 crore/ Total loan amount: ₹ 130 crore= ₹ 4.61 crore.

⁵² ₹ 45.11 crore VGF amount x ₹ 1.17 crore milestone advances outstanding/ ₹ 140.16 crore loan amount shown as invested.

⁵³ In case of Annuity and Toll+Annuity road projects.

⁵⁴ Early Completion Bonus shall be product of average daily Annuity and the number of days by which the date of completion preceded to the scheduled completion i.e. 730 days from the Appointed Date.

- Though the scheduled completion period of 730 days was proposed by the Company to SLEC and approved by GoMP, the basis of arriving at the time period was not available on record. Further, in case of Bankalphata-Dogawa and Ashoknagar-Vidisha roads, the Consultants had also recommended construction period of 365 days and 550 days respectively, but the Company adopted the scheduled completion period to 730 days.

Out of 12 projects awarded by the Company on Annuity and Toll+Annuity mode, the selected Concessionaires completed six projects (369.61 kms) before 550 days and five projects (321.28 kms) between 550 days and 730 days, i.e. within stipulated completion period.

The Company paid early completion bonus of ₹ 137.98 crore to the Concessionaires of these 11 projects⁵⁵ out of 12 projects. Incidentally if the Company had adopted scheduled completion period of

550 days from Appointed Date⁵⁶ as provided in the overview of the framework of MCA for construction of a BOT road project, early completion bonus payable for the above 11 projects would have been only ₹ 47.18 crore.

The Company stated (September 2019) that Feasibility Reports are indicative and mainly for the purpose of bidding only and the completion schedule was finalised by the Company looking to the volume of work⁵⁷ at site. The reply is not acceptable as the consultant had also recommended completion period of the projects after considering the volume of work at site. Further, inspite of wide variation in quantum of work involved in the above BOT projects in terms of widening/ new construction of major bridges⁵⁸, minor bridges⁵⁹ and length of roads⁶⁰, the Company had uniformly fixed project completion period as 730 days in respect of all the above projects without giving due weightage to the volume of work at site.

- In EPC and Regular Contracts (Asian Development Bank)⁶¹, there is a capping of three and five *per cent* of project cost respectively for early completion bonus, whereas no such limit was fixed in cases of BOT projects. In case of eight⁶² BOT projects, early completion bonus was more than five *per cent*, ranging from 6.33 *per cent* (Bhopal-1) to 26.50 *per cent* (Indore-3) of project cost. Hence, by not capping early completion bonus in case of BOT projects, the Company incurred early completion bonus of ₹ 77.84 crore in case of eight out of 12 BOT projects, which was avoidable.

⁵⁵ Within 550 days: Indore-2, Indore-3, Ujjain-SH3, Sagar-1, Sagar-SH2 and Gwalior-2. Between 550 days and 730 days: Bhopal-1, Narmadapuram-SH1, Indore-5, Gwalior-SH1 and Ujjain-SH2.

⁵⁶ The date on which Financial Closure is achieved or an earlier date that the Parties may by mutual consent determine, and shall be deemed to be the date of commencement of the Concession Period. Every Condition Precedent should have been satisfied or waived prior to the Appointed Date.

⁵⁷ Major bridges, Minor bridges, Culverts, etc.

⁵⁸ Nil in case of Gwalior-SH1 and four in case of Indore-2.

⁵⁹ One in case of Gwalior-SH1 and 21 in case of Bhopal-1.

⁶⁰ Gwalior-SH1 8.93 kms and Narmadapuram-SH1 124.10 kms.

⁶¹ MPRDC also executes road projects on the regular contract mode funded by Asian Development Bank.

⁶² Indore-2, Indore-3, Bhopal-1, Ujjain-SH3, Narmadapuram-SH1, Sagar-1, Sagar-SH2 and Gwalior-2.

The Company accepted (September 2019) that there is no upper cap limit in case of BOT Projects unlike cash contracts such as ADB funded projects, EPC projects and other budgeted projects.

- As per Clause 14.3 of the MCA, Independent Engineer (IE) may issue provisional completion certificate, if project highway can safely and reliably be put to use though certain works are incomplete. However, in case of five projects⁶³, early completion bonus of ₹ 75.18 crore was paid by the Company without ensuring construction of essential components of roads, completion of road as a whole which led to undue benefit to the Concessionaires and has adversely affected the economic execution of projects. The details are in Table 4.1.5:

Table 4.1.5- Payment of bonus without ensuring completion of essential components of roads

Road Project	Audit Observation
Bhopal-1	The Company without ensuring actual completion of pending construction of major bridge, paid (October 2014) early completion bonus of ₹ 5.21 crore to the Concessionaire.
Sagar-1	The Company without ensuring actual completion of pending works highway work in 1.6 kms ⁶⁴ length, paid (May 2014) early completion bonus of ₹ 14.31 crore to the Concessionaire. The Project was finally completed on 26 November 2015 with a delay of 440 days.
Sagar-SH2	The Company without ensuring actual completion of pending civil works in 21.950 kms paid (March 2016) early completion bonus of ₹ 26.71 crore to the Concessionaire.
Ujjain-SH2	Provisional completion certificate was issued (June 2015) with pending construction of protection work at minor bridge (Chainage 26+400 Kms). As a result, a fatal accident occurred on the spot on 15 July 2015. In spite of that, the Company paid (January 2016) early completion bonus of ₹ 4.36 crore to the Concessionaire.
Narmada puram-SH1	Provisional completion certificate for Narmadapuram-SH1 project was issued (November 2015) with pending construction of 21.500 Kms road and the Company paid (December 2015) early completion bonus of ₹ 24.59 crore to the Concessionaire.

- As per Clause 12.4 of Concession Agreement, the Concessionaire was required to start construction of project on/ after Appointed Date. In case of Sagar-1 and Sagar-SH2 projects, the Concessionaires started the work 21 days before Appointed Date. However, the Company has paid early completion bonus of ₹ 41.02 crore to the Concessionaires of the above projects without re-fixing the Appointed Date as per actual date of starting the work. The details are in Table 4.1.6:

⁶³ Bhopal-1, Sagar-1, Sagar-SH2, Ujjain-SH2 and Narmadapuram-SH1.

⁶⁴ Ch. 16+900 to 17+000 (100 m), 36+800 to 37+200(400 m), 38+200 to 38+700(500 m) and 40+800 to 41+400 (600 m).

Table 4.1.6- Payment of bonus without re-fixing Appointed Date

Road Project	Audit Observation
Sagar-1	Right of way was provided to the Concessionaire on 10 April 2012 and the Concessionaire achieved Financial Closure with a delay of 103 days on 12 September 2012, which was declared as appointed date. It was noticed that the Concessionaire had started the work before Appointed Date and completed Granular Subbase work in entire length by 18 September 2012. However, the Company has paid early completion bonus of ₹ 14.31 crore to the Concessionaire without re-fixing the Appointed Date as per actual date of starting the work.
Sagar-SH2	The Concessionaire achieved Financial Closure on 5 June 2014 with a delay of 187 days, which was declared as appointed date. It was noticed that the Concessionaire had started the work 21 days before appointed date. However, the Company has paid early completion bonus of ₹ 26.71 crore to the Concessionaire without re-fixing the Appointed Date as per actual date of starting the work.

- In case of eight projects⁶⁵, the Concessionaires achieved Financial Closure with delay in the range of 25 days to 187 days and accordingly declaration of Appointed Date was also delayed. However, the Concessionaires of above eight projects⁶⁶ had completed the work five days to 500 days before scheduled completion date, for which the Company has paid early completion bonus. Since, the projects were already delayed due to non-achieving Financial Closure in time, the objective of paying early completion bonus to provide early access of upgraded roads to the public was defeated to that extent.

Irregular payment to Concessionaire towards Change of Scope

4.1.18 As per guidelines⁶⁷, in case of BOT projects, risks during construction phase, i.e. Design Risk⁶⁸ and Construction Risk⁶⁹, are attributable to the private sector. Further, as per Concession Agreement⁷⁰, the description for the various elements of the Project Highway given are bare minimum for the Project. The Concessionaire was to procure finance and undertake the design, engineering, procurement, construction, operation and maintenance of the Project Highway at its own cost and expense. Schedule-A describes existing infrastructure details and Schedule-B describes the detailed scope of works for execution of BOT road projects. In this regard, the following deficiencies were noticed in Audit:

⁶⁵ Bhopal-1 (25 days), Sagar-1 (103 days), Sagar-SH2 (187 days), Narmadapuram-SH1 (143 days), Indore-5 (146 days), Gwalior-SH1 (90 days), Indore-3 (69 days) and Gwalior-2 (81 days).

⁶⁶ Bhopal-1 (118 days), Sagar-1 (318 days), Sagar-SH2 (202 days), Narmadapuram-SH1 (182 days), Indore-5 (50 days), Gwalior-SH1 (5 days), Indore-3 (500 days) and Gwalior-2 (470 days).

⁶⁷ Issued by PPP Cell, Infrastructure Division, DEA.

⁶⁸ The risk that the technology used will be unexpectedly superseded during the term of the project and will not be able to satisfy the requirements in the output specifications. It would result in increased costs of a replacement technology.

⁶⁹ The risk that the construction of the assets required for the project will not be completed on time, budget or to specification. It may lead to additional raw materials and labour costs, increase in the cost of maintaining existing infrastructure or providing a temporary alternative solution due to a delay in the provision of the service.

⁷⁰ Annexure-I to schedule B of Concession Agreement.

- In case of 11⁷¹ out of 16 completed projects, the Company paid ₹ 24.73 crore through change of scope for increase in items of works of roads (₹ 4.60 crore) and structures (₹ 20.13 crore), though the items of works were already incorporated in detailed scope of work of the Concession Agreements for which design and construction risk are attributable to the Concessionaire. Hence, payment of ₹ 24.73 crore on account of change in design or specification of the works to the Concessionaires was inadmissible.
- As per detailed scope of work of Concession Agreement, construction of new additional structures during the concession period will be the responsibility of the Concessionaire for which no compensation was payable by the Company. However, in case of five⁷² out of 16 completed projects, the Company paid ₹ 8.05 crore under change of scope for items not mentioned in the Schedule to Concession Agreement. Out of this, ₹ 7.47 crore was paid to the Concessionaires on account of structures of roads. This included construction of minor bridges of ₹ 3.30 crore on Ujjain-SH2 project⁷³ and Sagar-SH2 project⁷⁴. This indicated that the Company failed to identify requirement of construction of bridges having spans as big as up to 10 meter in length and could not include the same in the schedule of Concession Agreements.

The Company stated (September 2019) that the Concessionaire has to execute the project as per detailed scope of work and any variation in scope of work from it will lead to payment of change of scope as per Clause 16 of the Concession Agreement. Further, it was stated (November 2019) that in three BOT projects, MoRTH had also allowed Change of Scope for variation from detailed scope of work of Concession Agreement.

The reply is not acceptable as Concessionaire has to design, engineer, procure and construct the work as per detailed scope of work at its own cost. Clause 16 of the Concession Agreement also clearly specified that additional works and services which are not included in the Scope of the Project as per Concession Agreement will lead to payment of Change of Scope. Further, MoRTH in case of Rewa-MP/ UP Border BOT Project, rejected the Change of Scope proposal of the Company on the plea that the items were already included in detailed scope of work of the Concession Agreement.

Hence, for any change of scope of work due to deviation from detailed scope of work, the Company was not liable to pay. This has resulted in the payment over and above project cost to the tune of ₹ 24.73 crore to the Concessionaires.

- Feasibility Report (June 2010) of Narmadapuram-SH1 (124 Kms) included provisions for reconstruction in 71.20 Kms road and reconstruction from base course level in 48.85 Km of road as existing 48.85 Kms road was in good condition with sufficient road width. It was also mentioned in the report that the road was passing through Forest area.

⁷¹ Gwalior-2, Sagar-SH2, Indore-5, Gwalior-SH1, Indore-SH1, Indore-1, Indore-2, Sagar-1, Ujjain-SH2, Ujjain-SH3 and Indore-3. Financial implication of Indore-SH1 project was tentative and was not finalised.

⁷² Gwalior-2, Sagar-SH2, Gwalior-SH1, Ujjain-SH2 and Ujjain-SH3.

⁷³ At 41.432 km: ₹ 1.05 crore, 36.750 km: ₹ 0.63 crore and ₹ 0.53 crore.

⁷⁴ At 9.69 km: ₹ 0.55 crore, 11.22 km: ₹ 0.54 crore.

It was noticed that the Company by ignoring the fact of forest area did not initiate any action prior to Concession Agreement for necessary approvals from GoI for forest clearance, did not mention the details of forest area in the Concession Agreement (May 2011) and included provision for reconstruction of total road length. Subsequently, in principle approval for diversion of 19.653 hectare was accorded (April 2015) on basis of proposal of the Company (November 2014) submitted by the Concessionaire. In principal approval for balance 12.026 hectare was granted by MoEFC in October 2017 based on proposal submitted in March 2015.

Further, the Company considered only 4.68 Kms road⁷⁵ as good and existing layers of Granular Sub Base (GSB) and sub-grade was considered for negative change of scope leaving existing layers of GSB and sub-grade of 48.85 Kms road resulting in undue benefit of ₹ 20.07 crore to the Concessionaire. Besides, the Company had to bear cost of additional structures valuing ₹ 4.83 crore which were essential to comply the conditions of wildlife clearance. This resulted in avoidable liability of corresponding amount.

The Company stated (May 2019) that delay in obtaining permission was on account of forest department and NBWL. The reply is not acceptable as the Company did not initiate proposals in time. Further, it was stated that all the participant bidders had given their proposal based on minimum provisions prescribed in detailed scope of work laid down as per DPR. Reply does not explain reasons for not considering existing construction upto base level.

- As per Schedule-C of Concession Agreement of Gwalior-SH1 project, the Concessionaire was required to construct a toll plaza (₹ 0.97 crore) and two bus shelters (₹ 0.04 crore). However, based on the request of the Company (December 2013), the toll plaza was not constructed. During joint physical verification of the road, it was verified that the Toll plaza and two bus shelters were not constructed by the Concessionaire. In spite of that, the Company had not considered their cost of ₹ 1.01 crore for negative change of scope, for which reasons were not on record.

The Company stated (May 2019) that toll plaza was not applicable for Annuity projects, project cost of ₹ 15.88 crore was considered on the basis of financial analysis without including toll plaza. Reply is factually incorrect as cost of toll plaza and bus shelters has been included in project cost of ₹ 15.88 crore.

Delay in submission of Performance Security and achievement of Financial Closure

4.1.19 A. As per Concession Agreement, the Concessionaire was required to submit the Performance Security within 180 days from the date of Concession Agreement (Clause 9.1). Delay in submission of Performance Security⁷⁶ attracted damages from the Concessionaire (Clause 4.3). The Company could encash and appropriate the damages from Performance Security, subject to its replenishment to its original level by the Concessionaire within 30 days from

⁷⁵ Other than the stretch of 48.85 Km.

⁷⁶ At the rate of 0.20 *per cent* for each day of delay subject to maximum of 20 *per cent* of Performance Security.

the date of encashment (Clause 9.2). Interest⁷⁷ was to be levied for delayed payments by the Concessionaire (Clause 47.5).

Audit observed that in respect of nine⁷⁸ out of 12 terminated BOT road projects and 10⁷⁹ out of 16 completed BOT road projects, the Concessionaires submitted Performance Security with delays ranging from seven days (Narmadapuram-SH1) to 797 days (Indore-SH-36). This attracted damages amounting to ₹ 44.81 crore from 19 Concessionaires. However, the Company has not taken efforts for recovery of damages as prescribed under Clause 9.2 of Concession Agreement. As a result, the Company could not recover damages of ₹ 4.78 crore from six Concessionaires and recovery of damages of ₹ 40.03 crore from the remaining 13 Concessionaires was also made with delay ranging from nine days to 1,611 days. Non-recovery/ delayed recovery of damages has resulted in loss of interest amounting to ₹ 9.43 crore.

B. Clause 15 of the Guidelines⁸⁰ for PPP Projects in Madhya Pradesh specified that Performance Security would be discharged after completion of the Project. However, the Company did not initiate any action to amend the Concession Agreement as per Guidelines and continued with the existing Clause of releasing Performance Security after spending 20 per cent of the project cost. The Concession Agreement provided for not releasing Performance Security in case of breach of Agreement by the Concessionaire (Clause 9.3).

However, in case of ten⁸¹ out of 28 projects, in which the Concessionaires were at default due to delay in submission of Performance Security, achievement of Financial Closure and achieving milestones, the Company ignored the Clause 9.3 and released (October 2012 to May 2015) Performance Security of ₹ 69.47 crore before completion of the project instead of retaining the same. As a result, Concessionaires were extended undue benefit.

The Company stated (June 2019) that Clause 9.3 of MCA has been adopted, which provided for release of Performance Security after spending 20 per cent of project cost. Reply is silent on not adhering to the instructions issued by the Directorate of Institutional Finance, GoMP. Moreover, the Company even deviated from Clause 9.3 of MCA and released Performance Security of 10 projects, in which the Concessionaires were at default.

C. As per Concession Agreement, the Concessionaire was required to achieve Financial Closure within 180 days from the date of Concession Agreement, which was extendable for further 120 days (Clause 24.1.1). It further provided for payment of damages for delay in achieving Financial Closure⁸². Appointed Date i.e. the date of commencement of the concession period, is notified on achievement of Financial Closure.

⁷⁷ At the rate equal to 5 per cent above the Bank Rate.

⁷⁸ Gwalior-IX, Gwalior-SH-2, Gwalior-VIII, Indore-SH-36, Jabalpur-NH-12, Jabalpur-VI, Rewa-NH-75 (1), Rewa-NH-75 (2) and Sagar-SH-37.

⁷⁹ Gwalior-2, Gwalior-SH1, Indore-1, Indore-5, Indore-SH1, Narmadapuram-SH1, Sagar-1, Sagar-3, Sagar-SH2 and Ujjain-SH3.

⁸⁰ Issued (February 2008) by PPP Cell, Directorate of Institutional Finance, GoMP.

⁸¹ Bhopal-1, Indore-1, Indore-SH1, Jabalpur-VI, Narmadapuram-SH1, Rewa-SH4, Sagar-1, Sagar-3, Sagar-SH2 and Ujjain-SH3.

⁸² At the rate of 0.10 per cent of Performance Security for delay upto 120 days and at 0.20 per cent for delay for a further period upto 200 days.

In case of all the 12⁸³ terminated BOT road projects and 13⁸⁴ out of 16 completed BOT road projects, the Concessionaires achieved Financial Closure with delays ranging from nine days (Ujjain-SH3) to 1,088 days (Chhindwara-MDR). Delays were mainly due to Concessionaires' failure in obtaining loan from financial institutions in time. Hence, damages amounting to ₹ 94.34 crore were recoverable from the Concessionaires.

However, the Company has not taken efforts for recovery of damages. As a result, the Company could not recover damages of ₹ 52.59 crore from nine Concessionaires and recovery of damages of ₹ 41.75 crore from the remaining 16 Concessionaires was also made with delay ranging from 60 days to 1,484 days. Non-recovery/ delayed recovery of damages has resulted in loss of interest amounting to ₹ 20.79 crore. None of the Concessionaires replenished the Performance Security except Indore-SH1 project. The Company also did not monitor Escrow Accounts of the above Concessionaires for recovery of the dues as discussed in *Paragraph 4.1.26*.

Further, in case of Chhindwara-MDR, SH-54 and SH-23 projects, the Company, without recording any reason, has allowed Financial Closure beyond 300 days against the provision of Concession Agreement. Further, in respect of Chhindwara-MDR and SH-54 projects, the Company notified (September 2013 and February 2012) Appointed Dates three years and one year four months before Financial Closure by the Concessionaires. The projects, finally, could not be completed by the Concessionaire and were terminated by the Company, which resulted in time overrun and increase in project cost by ₹ 102.13 crore as detailed in *Annexure-4.5*.

Similarly, in case of Indore-SH1 project, the Company accepted (April 2012) Financial Closure based on underwriting of Term Loan by bank. The final common loan agreement with four lenders was executed by the Concessionaire on 06 February 2013. Hence, Appointed Date was irregularly notified by the Company in advance by 292 days.

In respect of Indore-SH1 project, the Company stated (July 2019) that damages have been recovered from the Operation and Maintenance Grant paid to the Concessionaire. Reply is not acceptable as interest on delayed recovery of damages was not being recovered.

The Company further stated (September 2019) that Clause 47.5 pertains to interest on delayed payment by both the parties and not for the delayed damages and damages have been recovered by invoking Performance Security. The reply is not acceptable as Clause 47.5 of Concession Agreement is very specific about charging of interest on any type of delayed payment by the Concessionaire including damages. Further, encashment of Performance Security cannot be termed as recovery of damages as the Concessionaire has not replenished the same after recovery of the damages.

⁸³ Chhindwara-MDR, Gwalior-IX, Gwalior-SH-2, Gwalior-VIII, Indore-SH-36, Jabalpur-NH-12, Jabalpur-VI, Rewa-NH-75 (1), Rewa-NH-75 (2), Sagar-SH-37, SH-23 and SH- 54.

⁸⁴ Bhopal-1, Gwalior-2, Gwalior-SH1, Indore-1, Indore-3, Indore-5, Indore-SH1, Narmadapuram-SH1, Rewa-SH4, Sagar-1, Sagar-3, Sagar-SH2 and Ujjain-SH3.

D. In six⁸⁵ out of 16 completed projects, project cost as per Concession Agreement was ₹ 1,058.81 crore. However, the Concessionaires of the projects increased the project cost at the time of Financial Closure to ₹ 1,195.75 crore citing reasons of escalation, interest during construction, preliminary and pre-operative expenses. Higher project costs were accepted by the Company at the time of approving Financial Closure and was not submitted to SLEC. As a result, the Concessionaires were allowed by them to avail higher borrowed funds besides creation of higher liability by ₹ 123.25 crore⁸⁶ in case the project gets terminated due to default of the Company or during operation period.

The Company stated (May 2019) that project cost is lowest of capital cost as per financial package, Concession Agreement and actual cost. The reply is silent on the aspect of increase in project cost, hence reply is not relevant to Audit observation.

Delay in obtaining forest clearance and providing Right of Way

4.1.20 Ministry of Environment, Forests and Climate Change, GoI notification (September 2006) provided for obtaining prior environmental clearance in case of expansion of NHs. Proposal for taking up non-forest activity in Protected Areas is required to be cleared by the Standing Committee of National Board for Wildlife (NBWL) under the provisions of Wildlife (Protection) Act, 1972, apart from prior approval of GoI under the Forest (Conservation) Act, 1980. As per Concession Agreement, the Company was required to obtain all permissions relating to environmental issues within five months from the date of Concession Agreement. MoRTH recommended (June 2011) that if actively pursued, forest clearance takes 1.5 to 2 years.

As per Clause 10.3.2 of Concession Agreement, the Company was required to provide 80 per cent/ 90 per cent of total Right of Way (RoW) to the Concessionaire before Appointed Date. In the event of delay in grant of stipulated RoW, the Company was liable to pay damages to the Concessionaire at the rate of 0.10 per cent of the Performance Security per day, subject to a maximum of 20 per cent of the Performance Security (Clause 4.2).

Audit observed that there were delays in obtaining forest clearance in three out of 12 terminated projects (25 per cent cases) and two out of 16 completed projects (13 per cent) test-checked due to delay in submission of proposals, furnishing of incomplete information, non-submission of proposal in prescribed format by the Company. This has also resulted in construction of roads with lesser width than the requirement, creation of black spot⁸⁷ on road passing through forest area due to inadequate width, subsequent delays in completion of projects and termination of projects as discussed in details in **Annexure-4.7**. Hence, level of service of road and safety of road users was adversely affected to that extent.

⁸⁵ Indore-1, Indore-2, Indore-SH1, Rewa-SH4, Sagar-SH2 and Narmadapuram-SH1.

⁸⁶ Equivalent to 90 per cent of the Debt due as per clause 37.3.1 of Concession Agreement.

⁸⁷ A Black spot is a place where there is frequent occurrence of road traffic accidents due to a variety of reasons.

Further, in respect of five out of the 16 completed projects (31 *per cent*), the Company delayed in providing RoW upto 32 months due to failure in effectively pursuing removal of encroachment, reconciling the mismatch data of land records, promptly pursuing for obtaining possession of site from other organisations and assessing the exact required land area, etc. The project wise delay in handing over of RoW have been detailed in *Annexure-4.8*. This has resulted in construction of road with lesser width than requirement, delay in construction of road, avoidable claim of damages from Concessionaire for delay in handing over site and avoidable payment of early completion bonus of ₹ 10.47 crore to the Concessionaires. Hence, level of service of road was adversely affected to that extent.

The Company stated (September 2019) that the Company had applied timely to concerned authorities and delay was on the part of other Authorities. Reply is not acceptable, as in case of test-checked projects, failure was on the part of the Company in timely submission of proposals, furnishing of incomplete information, non-submission of proposal in prescribed format.

In respect of delay in providing RoW, it was stated (September 2019) that due to encroachment, arbitration, court cases and involvement of other departments handing over of land was delayed. Reply is not acceptable as the delay in providing RoW was due to failure of the Company in effectively pursuing removal of encroachment, reconciling the mismatch data of land records, promptly pursuing for obtaining possession of site from other organisations and assessing the exact required land area, etc.

Irregular collection of user fees

4.1.21 MCA for SHs issued (April 2009) by Planning Commission of India provided that since repayment of debt would be neutral to inflation, therefore the user fee (Toll) should be indexed to the extent of 40 *per cent* of increase in Wholesale Price Index (WPI). Schedule-R of MCA also provided formula for revising user fees by limiting increase in WPI to 40 *per cent*⁸⁸.

It was noticed that MPPWD deviated from the methodology of calculation of user fees⁸⁹ and fixed the same for full indexation without restricting up to 40 *per cent* of increase in WPI, for which no reasons were furnished. This allowed Concessionaires of eight⁹⁰ out of 11 toll projects to levy excess user fees on 1.38 crore road users during May 2013 to September 2018, which resulted in undue benefit to the Concessionaires amounting to ₹ 7.14 crore. Besides, road users would be compelled to bear the extra burden of user fees for the entire concession period.

The Company replied (September 2019) that MCA is for guidance and not to be followed in toto. Concession Agreements are approved by SLEC with deviation from MCA. Fee notifications was issued by MPPWD and it did not provide for indexation of WPI to 40 *per cent*. In Exit Conference (October 2019), it was stated that if the Company change toll rates, financial viability of the projects will also be affected.

⁸⁸ Base rate +base rate x {(WPI A – WPI B)/ WPI B} x 0.40.

⁸⁹ Applicable rate of fees= base rate* WPI A/ WPI B.

⁹⁰ Gwalior-2, Indore-1, Indore-2, Indore-SH1, Narmadapuram-SH1, Sagar-SH2, Ujjain-SH2 and Ujjain-SH3.

Reply is not acceptable as Empowered Institution, DEA, GoI in its meeting with the Company officials, clarified (June 2006) that deviation from MCA is not acceptable in respect of issues which are basic to a PPP project. Since, recovery of project cost by the Concessionaire by levy of user fees is basic to a PPP project, deviation from MCA is not acceptable. Further, proposals submitted by the Company to SLEC for approval did not mention this deviation from MCA. Further, in case of National Highways implemented by the Company, indexation to the extent of 40 *per cent* of increase in WPI was done.

Further, project-specific deficiencies in collection of user fees in four out of 11 toll projects are discussed below:

- **Rewa-SH4 (74.132 kms):** IE issued (June 2013) and the Company accepted provisional completion certificate for first homogenous section (40.02 kms) and user fee notification for that section was issued in contravention to the provisions of MCA. The Concessionaire collected ₹ 1.15 crore user fees upto October 2014, without completion of whole project. The Concessionaire stopped the work in November 2013 and the project was terminated on 05 May 2015. The Company has also not taken any efforts to collect the user fee (Toll) from the road users after termination of the project.
- **Rewa-NH1 (89.30 kms):** IE issued (February 2015) and the Company accepted provisional completion certificate for incomplete project and user fee notification for a part of road (49.63 kms) in contravention of the provisions of MCA. As a result, Concessionaire collected ₹ 5.93 crore user fees without completion of whole project.

The Company stated (May 2019) that IE had intimated (February 2015) that the Concessionaire had completed 75 *per cent* of the total length of the project. The reply is factually incorrect as the Concessionaire completed only 55 *per cent* (49.60 kms*100/ 89.30 kms) on the date of issue of provisional completion certificate.

- **Ujjain-SH2:** The Concessionaire citing the reason of traffic leakage, requested (June 2013) the Company to give permission to shift the location of user fee collection point from Km 10+500 to “16+00 to 17+00”. However, the Company gave (June 2015) permission to set up an additional fee collection point at Ch. 36+200. As the Concessionaire was required to make his own assessment for project viability, allowing the additional user fee collection point has resulted in undue advantage to the Concessionaire which was not originally envisaged at the tendering stage.

The Company replied (May 2019) that the Concessionaire was allowed for additional user fee collection point as per Clause 27.8 of Concession Agreement. The reply is not acceptable as the Company in pre-bid meeting (July 2012) already accepted that the revenue leakage point was hypothetical. Further, Concessionaire had applied for shifting of user fee point and Concession Agreement also provided for only one user fee point. Therefore, allowing the additional user fee collection point before completion of road was not justified.

- **Ujjain-SH3:** The Concessionaire did not deposit user fee collection of ₹ 1.73 lakh in the Escrow Account.

Issue of provisional completion certificates

4.1.22 As per Clause 14.3 of the MCA, Independent Engineer (IE) may issue provisional certificate of completion, if at least 75 per cent of the total length of the Project Highway has been completed and it can be safely and reliably placed in commercial operation subject to non-completion of certain works⁹¹. As per executed Concession Agreement, the Concessionaire was required to complete the incomplete items within 90 days from the date of Provisional Completion Certificate and for any delay thereafter damages⁹² were payable by the Concessionaire (Clause 14.4.1). In this regard, Audit has observed the following deficiencies:

- In case of eight⁹³ out of 16 completed projects, Provisional Completion Certificates were issued by IE without ensuring completion of total length of carriageway, construction of major/ minor bridges, widening of minor bridges, works of bituminous concrete, side shoulders, protection work of bridges which were accepted by the Company. Inclusion of such critical works in punch list was against the provisions of MCA and the roads were not fit for safe and reliable commercial operation.
- Concessionaires of five⁹⁴ out of the above eight projects, completed pending items of punch list with a delay ranging from 93 to 669 days. In case of Sagar-3 project, Provisional Completion Certificate was issued (June 2016) without construction of two major bridges⁹⁵, which are still incomplete. Subsequently, the Concessionaire stopped infusion of equity in the project. As a result, the project is standstill⁹⁶ and on the verge of termination (March 2019). In case of termination of the project after issue of provisional completion certificate, possibility of bearing liability of outstanding loan of ₹ 62.63 crore by the Company cannot be ruled out. The Company did not recover damages from the above six Concessionaires as per Clause 14.4.1 amounting to ₹ 17.58 crore.
- In case of Indore-SH1 project (127.44 km), Provisional Completion Certificate was issued (September 2014) without completion of 75 per cent of length.

The Company stated (September 2019) that provisional completion certificates were issued by IE after substantially completion of the project with pending works and with declaration that the project is fit for entry into commercial operation. Reply does not explain the reasons for deviation from the Clause 14.3 of the MCA, which provides that Provisional Completion Certificate can

⁹¹ This may include roadside drains, fencing, tree plantation, rest areas, project facilities, turfing on embankment slopes, pointing of masonry works, stone pitching, bus shelters and truck lay-byes.

⁹² Per day damages at the lower of 0.10 per cent of the Performance Security and 0.20 per cent of the cost of completing such items as estimated by the IE.

⁹³ Sagar-3, Indore-1, Indore-SH1, Ujjain-SH2, Bhopal-1, Sagar-1, Narmadapuram-SH1 and Sagar-SH2.

⁹⁴ Indore-1, Indore-SH1, Ujjain-SH2, Sagar-1 and Narmadapuram-SH1.

⁹⁵ At chainage Km 5+860 and Km 20+370.

⁹⁶ Sagar-3 Project (45.50 km).

be issued with pending works of ancillary nature only viz. roadside drains, fencing, tree plantation, rest areas, project facilities, turfing on embankment slopes, pointing of masonry works, stone pitching, bus shelters and truck lay-byes only. Further, in Exit Conference (October 2019), Principal Secretary agreed that while accepting provisional completion certificates, the Company should check actual completed work and assess that only ancillary items of work are pending.

Further, it was stated (September 2019) that several notices have been issued to the Concessionaires for depositing damages for delay in completion of punch list items. Reply is not acceptable as no such notices were found on record and recovery of damages has not been made so far.

Avoidable expenditure on repair and maintenance

4.1.23 As per Clause 12.2 of Concession Agreement, the Concessionaire was required to maintain the road at its own cost so that the traffic worthiness and safety thereof are maintained, and was required to undertake the necessary repair and maintenance works for this purpose.

It was noticed that in case of three projects viz. Jabalpur-NH-12, Sagar-SH-37, Rewa-NH-75(2) out of 12 projects terminated by the Company, the Concessionaire did not maintain the Project Highway during construction period. Subsequently, the Company incurred an amount of ₹ 22.54 crore⁹⁷ on repair and maintenance of such roads, which was to be borne by the Concessionaires. The Company, however, made no effort for recovering the same from the Concessionaires.

The Company stated (September 2019) that after termination of the Concession Agreement, it is the responsibility of the Company to keep the road motorable and to ensure safety of road users. Reply is self-explanatory that due to poor maintenance of the road by the Concessionaires, the Company had to incur expenditure on repair and maintenance of the road.

Further, it was stated (September 2019) repair expenditure has been recovered by invoking Performance Security of the Concessionaire of Rewa-NH-75 (2). Reply is not correct as Performance Security amount (₹ 16.05 crore) was less than the total amount recoverable from him towards other damages (₹ 24.46 crore). In respect of Sagar-SH-37, it was stated that the repair/renewal work was carried out in different reach of the road. However, no records were furnished by the Company in support of reply.

Recommendation: The Company should ensure strict compliance of the provisions of Concession Agreements relating to construction period, rate of user fees, provisional completion certificates, etc and fix responsibility for deviations.

Financial Management

4.1.24 The fourth objective of this Performance Audit was to assess whether funding of BOT projects was economical and efficient.

⁹⁷ Jabalpur-NH-12: ₹ 16.56 crore, Sagar-SH-37: ₹ 0.87 crore, Rewa-NH-75 (2): ₹ 5.11 crore
= Total ₹ 22.54 crore.

Funds for the projects were provided through State budget. During 2013-18, the Company incurred ₹ 73.17 crore towards viability gap funding (VGF), ₹ 274 crore towards development and supervision of BOT roads and ₹ 2,334.36 crore towards Annuity payment as detailed in Table 4.1.7:

Table 4.1.7 Year wise funding through State budget to the Company for roads during 2013-18

(₹ in crore)

Particulars	Year	Budget Provision	Actual Expenditure	Saving	Saving (in per cent)
Annuity	2013-14	175.00	87.50	87.50	50.00
	2014-15	425.00	400.00	25.00	5.88
	2015-16	669.94	585.86	84.08	12.55
	2016-17	550.00	550.00	0.00	0.00
	2017-18	711.00	711.00	0.00	0.00
Annuity Total		2,530.94	2,334.36	196.58	7.77
Development and Supervision of BOT Roads	2013-14	10.00	8.00	2.00	20.00
	2014-15	35.00	35.00	0.00	0.00
	2015-16	171.00	171.00	0.00	0.00
	2016-17	92.30	60.00	32.30	34.99
	2017-18	0.00	0.00	0.00	0.00
Development and Supervision of BOT Roads Total		308.30	274.00	34.30	11.13
VGF	2013-14	41.00	23.34	17.66	43.07
	2014-15	40.00	23.58	16.42	41.05
	2015-16	30.00	14.13	15.87	52.90
	2016-17	48.00	3.71	44.29	92.27
	2017-18	40.00	8.41	31.59	78.98
VGF Total		199.00	73.17	125.83	63.23
Grand Total		3,038.24	2,681.53	356.71	11.74

Source: Detailed Appropriation Accounts of respective years.

In addition to the above budgetary funding, the Company utilised ₹ 409.25 crore from State Highway Fund⁹⁸ (SHF) during 2013-18 for meeting development cost of projects, maintenance and repair of highways, pre-tender activities, utility shifting, land acquisition, etc.

Audit analysed the Financial management of the Company with reference to BOT projects and the instances of non-recovery of premium amount, project monitoring fee, establishment charges, IE fees and Project Development Expenditure (PDE) from the Concessionaires were noticed. Further, the operation of Escrow Accounts was also found to be deficient. Detailed audit findings are discussed in succeeding paragraphs.

Non-recovery of Project Development Expenditure

4.1.25 As per Madhya Pradesh Project Development Fund (MPPDF) scheme guidelines, MPPDF is to be used for the Project Development Expenditure⁹⁹ (PDE) incurred by the Company. Para 12 of scheme guidelines provided that

⁹⁸ SHF was established under Section 3 of the Madhya Pradesh Rajmarg Nidhi Adhiniyam, 2012.

⁹⁹ Feasibility studies, Cost of consultants, Environment impact studies, Financial structuring, Legal reviews, Development of project documentation including concession, agreement, Commercial assessment studies (including traffic studies, demand assessment, capacity to pay assessment), Grading of projects, etc.

PDE will be recovered from the successful bidder on award of the project and the Company will make clear provisions for this in the Concession Agreements.

The Company incurred PDE of ₹ 18.96 crore on preparation of Feasibility Reports, consultant fee and financial analysis charges in respect of prospective 97 BOT roads during 2013-18. However, it was noticed that the Company did not include any specific provision in the Concession Agreements for recovery of PDE, which was contrary to provisions in Scheme Guidelines as aforesaid. Therefore, it failed to recover the same from the Concessionaires. Further, PDE of ₹ 8.88 crore¹⁰⁰ was met from appropriating SHF¹⁰¹ and PDE of ₹ 10.08 crore¹⁰² was borne by the Company from its own funds.

Thus, not only did the Company fail to recover PDE of ₹ 18.96 crore from the Concessionaires, but incurred PDE from government funds as well. This non-recovery of PDE from the Concessionaires ultimately resulted in loss to the Government exchequer.

The Company accepted (November 2019) that there is no provision in the Concession Agreement to recover PDE. Further, it was stated that at the time of preparation of project it was envisaged that PDE would be borne by the GoMP through State Highway Fund. Reply is not acceptable as in spite of clear instructions of GoMP, no specific clause was included in Concession Agreement by Company for recovery of Project Development Expenditure from the Concessionaires.

Excess draws from Escrow Accounts

4.1.26 As per Concession Agreement, the Concessionaire was required to execute and procure Escrow Agreement¹⁰³ before the Appointed Date¹⁰⁴. The Concessionaire was also required to open an Escrow Account with Escrow Bank for routing financial inflows and outflows of the project (Clause 31 of the Concession Agreement). The Escrow Bank was to act as a trustee for the Company, the lenders and the Concessionaire. Withdrawal of funds from Escrow Account *inter alia* included for all payments¹⁰⁵ relating to construction of the Project Highway and all payments and damages certified by the Company as due and payable to it, by the Concessionaire. The Company was a signatory in the executed Escrow Agreements. Independent Engineer (IE)

¹⁰⁰ Pertaining to SHs and MDRs.

¹⁰¹ As per Section 4 of the Madhya Pradesh Rajmarg Nidhi Adhiniyam, 2012, the SHF may be utilised for meeting expenditure incurred on data collection, pre-feasibility studies or feasibility studies.

¹⁰² Pertaining to NHs.

¹⁰³ It is agreement among the Concessionaire, the Company, the Escrow bank and the Lenders.

¹⁰⁴ The date on which Financial Closure is achieved or an earlier date that the Parties may by mutual consent determine, and shall be deemed to be the date of commencement of the Concession Period. Every Condition Precedent should have been satisfied or waived prior to the Appointed Date.

¹⁰⁵ Subject to and in accordance with the conditions, if any, set forth in the Financing Agreements.

engaged by the Company was required to keep a watch on the achievement of the milestones¹⁰⁶ by the Concessionaire and report to the Company.

In the absence of Project Monitoring Units and Project Review Units (*Paragraph 4.1.30*), the Company could not monitor compliance of conditions relating to Escrow Account. As, the Company did not furnish Escrow Account statements of the selected projects to Audit, the same in respect of 15¹⁰⁷ out of 28 projects were obtained by Audit directly from the respective Escrow Banks. Review of Escrow Account statements, revealed the following deficiencies in eight out of the above 15 projects:

- Concessionaires of three terminated projects¹⁰⁸ opened the Escrow Accounts with a delay of 23 days to 62 days from Appointed Date, for which damages at the rate of 0.20 *per cent* of the Performance Security per day were payable by the Concessionaire (Clause 4.3). However, the Company did not impose the penalty of ₹ 1.22 crore for delay in opening of Escrow Accounts. In case of other three projects¹⁰⁹, the Concessionaires opened current account instead of Escrow Account in contravention of Clause 31 of the Concession Agreement.

In case of Gwalior-IX Project, the Company stated (September 2019) that the Appointed Date was declared before Escrow Agreement as the Concessionaire had already started actual construction work. This indicated lackadaisical approach of the Company in ensuring operation of Escrow Account even after start of the project.

- The first and second milestones were to be achieved within 180 days and 365 days from Appointed Date with 10 *per cent* and 35 *per cent* financial progress respectively.

Scrutiny of Escrow/ Current Account statements of seven projects¹¹⁰ revealed that the Concessionaires failed to achieve either of the milestones but funds ranging from 10 to 70 *per cent* of total project cost in respect of first milestone and 27 to 72 *per cent* in respect of second milestone were withdrawn from Escrow/ Current Account. Further, six out of seven projects were terminated by the Company due to slow progress of work. Excess withdrawal of fund at the time of termination was ₹ 332.19 crore as detailed in **Annexure-4.9**.

The Company accepted (September 2019) the fact and stated that as per provisions of Escrow Agreement, Escrow Bank is responsible for withdrawal from Escrow Accounts as per provisions of Escrow Agreement. It was also stated that the Company is not responsible for monitoring of day to day transactions of Escrow Accounts. Further, it was stated that the lender banks

¹⁰⁶ Schedule-G of Concession Agreement provides for four milestones, with expenditure of not less than 10, 35, 70 and 100 *per cent* of total capital cost set forth in the Financial Package.

¹⁰⁷ Terminated Projects: Gwalior-IX, Gwalior-VIII, Sagar-3, Gwalior-2, Gwalior-SH-2, SH-54, Rewa-NH-75 (1), Rewa-NH-75 (2) and Jabalpur-VI. Completed Projects: Ujjain-SH3, Gwalior-SH1, Indore-2, Indore-3, Sagar-SH2 and Sagar-1.

¹⁰⁸ Gwalior-IX, Gwalior-VIII and Sagar-3.

¹⁰⁹ Gwalior-SH-2, SH-54 and Ujjain-SH3.

¹¹⁰ Current Accounts: Gwalior-SH-2 and SH-54 (terminated), Escrow Accounts: Gwalior-IX, Rewa-NH-75 (2), Rewa-NH-75 (1), Gwalior-VIII (terminated) and Sagar-3 (completed).

disbursed the amount on the basis of Lenders' Independent Engineer (LIE)¹¹¹ reports and the lenders had not intimated disbursement to the Company. Thus, there was no mechanism to monitor withdrawal from Escrow/ Current Accounts of the projects by the Company, which in turn led to excess withdrawal of fund.

- In case of Gwalior-VIII project, as and when loan and equity amount was disbursed in Escrow Account, the Concessionaire transferred the same to another current account immediately and disbursed that amount for meeting project related expenses through that current account only. Thus, the Concessionaire bypassed the control mechanism of the Escrow Account.

The Company stated (September 2019) that the Concessionaire may open sub-accounts as per the provisions of the Escrow Agreement. The current account was a sub-account of the Escrow Account. Reply is not acceptable because as per Clause 4.1.1 of the Escrow Agreement, sub-account was to be used only for depositing the amounts, which are not due in any month, by appropriating from the Escrow Account. Hence, the current account maintained by the Concessionaire cannot be considered as sub-account as replied by the Company. Further, the current account which was stated as sub-account was opened (October 2012) prior to opening (November 2012) of Escrow Account.

Thus, instances of withdrawal of funds more than the physical progress of work, transferring the funds to current account immediately indicated impact of absence of control mechanism in the withdrawal of money from the Escrow Accounts.

- As per Common Loan Agreement, LIE was required to monitor and report the progress of the project to lender. In case of Gwalior-SH-2, Gwalior-IX and Gwalior-VIII terminated projects¹¹², LIEs had reported progress of 20.61 per cent, 50 per cent and 55 per cent respectively as against the IE (appointed by the Company) progress of 6.72 per cent, 27.71 per cent and 37.56 per cent respectively.

Reporting of higher progress than that of actual by LIE contributed to disbursement of higher loan amount to the Concessionaire. As a result, the Concessionaires of eight¹¹³ projects withdrew ₹ 401.65 crore from financial institutions for incomplete works, which were declared by lenders as Non-Performing Assets due to non-repayment by Concessionaires. Besides, due to absence of prompt and efficient Escrow Account monitoring mechanism, the possibility of diversion of funds cannot be ruled out.

- In case of four¹¹⁴ terminated projects, the Concessionaires/ lenders have appropriated ₹ 7.10 crore from Escrow Account towards payment to EPC contractors and lenders even after the termination of Concession Agreement in

¹¹¹ Lenders' Independent Engineer is appointed by lender to monitor and report physical progress of the project.

¹¹² LIE records of other projects were not available with the Company.

¹¹³ Gwalior-SH-2, Gwalior-IX, Rewa-NH-75 (2), Rewa-NH-75 (1), Gwalior-VIII, SH-23, Jabalpur-VI and Sagar-SH-37.

¹¹⁴ Gwalior-SH-2, Gwalior-IX, Rewa-NH-75 (2) and Rewa-NH-75 (1).

contravention of Clause 31.4.1¹¹⁵ (**Annexure-4.9**). The Company has not taken efforts to recover damages on account of delay in submission of Performance Security, Financial Closure, achievement of milestones and IE fees from Escrow Account as per Clause 31.4.1, as detailed in Table 4.1.8:

Table 4.1.8 Non-recovery of Company dues from Escrow account after termination

(₹ in crore)

Sl. No.	Name of project	Pending dues of the Company				Amount recoverable towards increase in Project Cost ¹¹⁶	Total Amount	PS* Amount
		Delay in submission of PS*	Delay in FC [#]	Delay in achieving Milestone	IE fees			
1	Gwalior-SH-2	1.40	1.06	1.60	1.32	30.04	35.42	7.00
2	Gwalior-IX	1.59	1.55	4.74	2.62	66.29	76.79	7.93
3	Rewa-NH-75 (2)	3.21	6.52	20.26	2.29	193.85	226.13	16.05
4	Rewa-NH-75 (1)	2.58	6.14	37.61	3.58	68.29	118.20	12.89
Total		8.78	15.27	64.21	9.81	358.47	449.41	43.87

* PS = Performance Security, # FC = Financial Closure

The Company stated (September 2019) that recovery of damages by invocation of Performance Security was already done and there was no need to recover it from Escrow Account. It was further assured (November 2019) that in future it will develop a mechanism for monitoring of Escrow Accounts of Concessionaires.

The reply is not satisfactory as encashment of Performance Security was not adequate to recover all the dues of the Company including additional cost required to be incurred by the Company in awarding the balance work after termination. Further, during construction period, if the Company recover damages from Performance Security, the same was required to be replenished by the Concessionaire to its original level.

Short recovery of premium amount from the Concessionaires

4.1.27 According to Clause 26.2.1 of the Concession Agreement, during the concession period, the Concessionaire was required to pay yearly premium¹¹⁷ to the Company. The premium shall be determined by increasing the amount of premium in the respective year by an additional 5 per cent as compared to the immediately preceding year. Further, as per Clause 47.5 of Concession Agreement, interest¹¹⁸ was to be levied for delayed payments by the Concessionaire.

¹¹⁵ Clause 31.4.1 specifies the order in which amount from Escrow Account will be appropriated after termination of Concession Agreement like all due taxes, 90 per cent of debt due, outstanding concession fee, all payment and damages certified by the Company, etc.

¹¹⁶ Project cost was increased after re-awarding the balance works of terminated projects on EPC mode.

¹¹⁷ As quoted by the Concessionaire at the time of tendering.

¹¹⁸ At the rate equal to 5 per cent above the Bank Rate.

As on 31 March 2018, nine road projects¹¹⁹ were executed by the Company on Toll premium mode. However, the four¹²⁰ Concessionaires had not paid premium since the beginning of projects amounting to ₹ 214.03 crore. Similarly, payment of premium by two¹²¹ Concessionaires was in arrears of ₹ 4.53 crore. The reasons cited by the Concessionaires for non-payment of premium was insufficient collection of toll. Further, in case of Rewa-NH1 project, the Concessionaire made short payment of premium by ₹ 1.88 crore¹²² than the due amount of premium. The Company accepted the short payment without recording any reasons.

In this regard, Audit observed that there was specific clause in the Concession Agreements, for verification of the toll revenue reported by the Concessionaires. However, the records relating to invoking that clause and conducting verification of reported insufficient toll revenue, was not found on record. Further, agenda prepared (December 2013) for Tender Committee suggested that additional Bank Guarantee of an amount equal to the due amount of premium should be obtained. However, the Company had not taken any initiative for inclusion of specific provisions in Concession Agreement for obtaining additional Bank Guarantee. Moreover, the Company had also not monitored Escrow Account for recovery of premium as discussed in *Paragraph 4.1.26*. As a result, the Company had to suffer loss on account of non-recovery of premium amount of ₹ 218.56 crore (as on 31 March 2018) from six Concessionaires and consequent loss of interest of ₹ 59.02¹²³ crore.

The Company stated (September 2019) that various notices were issued to the Concessionaires and further assured that in future, appropriate action would be taken as per the various provisions of the Concession Agreements. Reply is silent on the aspect of not securing premium revenue by obtaining Bank Guarantee of equivalent amount from the Concessionaire and reasons for non- verification of the reported toll revenue.

Non-recovery of Project Monitoring Fee, Establishment Charges and IE Fees

4.1.28 As per Clause 6.10.3, 7.3 and 25.4 of Concession Agreement, the Concessionaire was required to pay to the Company, one *per cent* of annual toll collected by him, as a Project Monitoring Fee till the end of concession period. Further, as per Clause 17.6 and Schedule-P of Concession Agreement, the Concessionaire shall pay to the Company one *per cent* of the toll collection towards its establishment expenses/ payment of IE fee for the operation period for each accounting year. This shall be due and payable within 30 days of end

¹¹⁹ Lebad-Jaora (SH), Jaora-Nayagaon (SH), Indore-Ujjain (SH), Ujjain-UnhelJaora (SH), Lebad-Manpur (SH), Mhow-Ghatabillod (SH), Bhopal-Bypass (SH), Bina-Kurwai-Sironj (SH) and Rewa To Hanumana MP/ UP Border (NH).

¹²⁰ Mahakaleshwar Tollways Pvt Ltd, M/s Essel Mhow Ghatabillod Toll Roads Ltd., M/s Transtroy Bhopal Bypass Pvt. Ltd., Hyderabad and Telecommunications Consultants India Limited.

¹²¹ M/s Topworth Tollways (Ujjain) Pvt. Ltd. Mumbai and Valecha LM Toll Pvt Ltd.

¹²² Concessionaire quoted annual premium of ₹ 3.60 crore. However, the Concessionaire paid less premium of ₹ 1.88 crore for the years 2015-18.

¹²³ Bhopal Bypass- ₹ 28.98 crore and Mhow-Ghatabillod- ₹ 30.04 crore (as the major non-recovery of premium was towards these two projects, interest was calculated for these projects only).

of every financial year. Interest¹²⁴ was to be levied for delayed payments by the Concessionaire (Clause 47.5).

Audit observed that during 2013-18, an amount of ₹ 48.99 crore was recoverable from 36 Concessionaires, out of which the Company recovered only ₹ 45.62 crore that also with delays upto 335 days from the due date. Thus, at the end of the March 2018, an amount of ₹ 3.37 crore was pending as recoverable towards Project Monitoring Fee, Establishment Charges and IE Fees during operation period. The reasons for delayed/ non-recovery of dues were lack of regular pursuance, non-recovery from Escrow Account and absence of system in the Company for monitoring of recovery of Project Monitoring Fee, Establishment Charges and IE Fees from the Concessionaire.

Further, as per Schedule-P of Concession Agreement of Indore-SH1 and Rewa-SH4, the Company was required to limit IE fees to two *per cent* of their Project Cost. However, the Company wrongly incurred IE fees of ₹ 1.38 crore¹²⁵ and ₹ 3.01 crore¹²⁶ respectively in excess of limit of two *per cent*, which was not recovered from the Concessionaires inspite of its specific provision in the Concession Agreement. Hence, there was no system in place in the Company to ensure that expenditure towards IE fees does not exceed the prescribed limits.

The Company stated (September 2019) that regular monitoring is being done for recovery of dues by way of reminders and meetings. Further, it was stated that that Indore-SH1 and Rewa-SH4 projects were delayed and accordingly, services of IE were also extended, which resulted in exceeding the limit of two *per cent*. Reply is not acceptable as agreement with IE were held in advance for an amount higher than the ceiling of two *per cent*. Further, no such records of reminders and meetings with the Concessionaires for recovery of dues were produced to Audit.

Recommendation: The Company should fix responsibility for not monitoring Escrow Account operations and make efforts to include relevant clauses in Concession Agreements for proper monitoring of Escrow Account operations.

Monitoring and quality control

4.1.29 The fifth objective of this Performance Audit was to assess whether monitoring of the projects to achieve the intended objective was effective.

Audit observed that there was lack of effective mechanism in the Company for monitoring of BOT Projects. The instances of non-appointment of Safety Consultant, deficient construction quality and maintenance of roads, delayed appointment of IE and fixation of unrealistic targets for supervision of roads by the technical officers were noticed. Detailed audit observations are discussed below: -

¹²⁴ At the rate equal to 5 *per cent* above the Bank Rate.

¹²⁵ Indore-SH1 = IE Fee incurred ₹ 5.92 crore less (Project Cost ₹ 227 crore x 2 *per cent*).

¹²⁶ Rewa-SH4 = IE Fee incurred ₹ 5.45 crore less (Project Cost ₹ 121.77 crore x 2 *per cent*).

Lack of Institutional Mechanism for Monitoring of Projects

4.1.30 As per guidelines issued (August 2012) by the Planning Commission, GoI, for Institutional Mechanism for Monitoring of PPP Projects, for monitoring the performance of PPP Projects, in addition to the appointment of IE, PPP Projects Monitoring Unit (PMU) was to be established at the Company level and PPP Performance Review Unit (PRU) was to be established at the State Government level. Monitoring by the PMU should, *inter alia*, cover monitoring of compliance of the conditions of the Concession Agreement and adherence to the project time lines.

Audit observed that monitoring by the Company was being done by obtaining monthly progress reports of projects from IEs. Deficiencies noticed during execution and its rectification were also being watched through IE reports without verifying the same at Company/ GoMP level. However, the Company did not establish PMU at field as well as at the Company level and PRU at State Government level for monitoring of performance of BOT projects. Therefore, compliance of guidelines for Institutional Mechanism for Monitoring of BOT Projects was not assured.

As a result, issues of non-compliance of provisions of Concession Agreement i.e. non-imposition of damages for delay in achieving milestone (*Paragraph 4.1.15*), Financial Closure, submission of Performance Security (*Paragraph 4.1.19*), excess drawals from Escrow Accounts (*Paragraph 4.1.26*), etc. were noticed as discussed in previous paragraphs. Besides, the Company could not ensure compliance of the provisions of Building and Other Construction Workers' Welfare Cess Act, 1996 viz. collection, remittance and assessment of Labour Cess, registration of establishments and beneficiaries, implementation of Welfare Schemes, facilities for Workers, etc. by the Concessionaire.

The Company stated (September 2019) that Guidelines are generic in nature and meant to assist the Project Authorities in evolving their own institutional mechanism. There is already a two-tier mechanism for monitoring PPP projects i.e. IE / Divisional Manager at field level and General Manager/ Chief Engineer (CE) at head office level. Reply is not convincing as Guidelines specifically provided for monitoring mechanism for ensuring compliance of the conditions of the Concession Agreement and adherence to the time lines. The project authority was to establish institutional arrangements for ensuring the same. However, neither IEs nor CEs followed the mechanism mentioned in the Guidelines resulting in inadequate monitoring and subsequent deficiencies.

Unrealistic targets for supervision of roads

4.1.31 The Company notified duties and responsibility of technical officers deployed at its Divisional Offices, which, *inter alia* included conducting weekly inspection (four days in a week on each road by Managers and two days in a week by AGMs), testing of roads and submission of reports and bills to Headquarters. As on 31 March 2018, nine Divisional Managers, 29 AGMs and 24 Managers were posted in Indore, Gwalior, Rewa, Ujjain, Narmadapuram, Jabalpur, Sagar, Chhindwara and Bhopal divisions.

Audit observed that at nine divisions, the targets fixed for supervision of roads by the technical officers were unrealistic. Length of roads to be monitored by

each technical officer, ranged from 447 km (Chhindwara) to 2,997 km (Bhopal) per week for each AGM and 893 km (Chhindwara) to 5,993 km (Bhopal) per week for each Manager. The details are furnished in table 4.1.9:

Table 4.1.9 Length of roads to be monitored by each technical officer at divisions

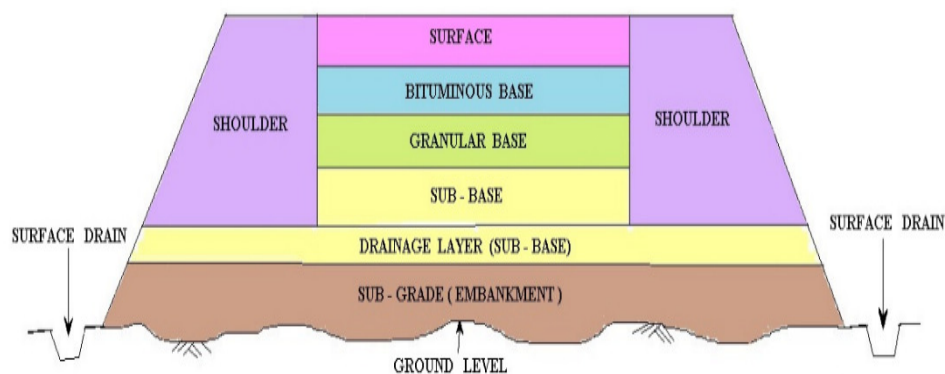
Sl. No.	Division	Length of roads (Kms)	No. of AGMs posted	No. of Managers posted	Weekly Length to be covered by each AGM (Kms)	Weekly Length to be covered by each Manager (Kms)
1	Indore	1,499	4	2	999	1,999
2	Gwalior	973	3	4	556	1,113
3	Rewa	1,234	3	2	987	1,975
4	Ujjain	2,192	3	3	1,461	2,923
5	Narmadapuram	626	2	1	835	1,669
6	Jabalpur	1,035	5	2	592	1,184
7	Sagar	2,712	4	3	1,550	3,099
8	Chhindwara	669	2	4	447	893
9	Bhopal	4,495	3	3	2,997	5,993

Thus, targets for supervision of roads by technical officers deployed at divisions were not in synchronisation with the actual manpower deployed.

The Company accepted (November 2019) the fact and stated that the quantum of work will be re-assessed and manpower will be deputed accordingly.

Acceptance of sub-standard Quality of road construction

4.1.32 As per Clause 13.3.1 of Concession Agreement, IE was required to ensure that the road construction conform to the specifications and standards for quality assurance. The pavement consists of subgrade¹²⁷, sub base course¹²⁸, base course¹²⁹, wearing course¹³⁰ and seal coat.



Audit noted following instances of non-adherence to the quality parameters in case of four out of 28 projects from monthly inspection reports of IE and records of the Company:

¹²⁷ Subgrade is made of soil primary component of road.

¹²⁸ Sub base is laid over sub grade is made of boulders and moorum (granular material).

¹²⁹ Base course is laid over the sub base is made of either bituminous mix or granular material.

¹³⁰ Wearing course is made of bituminous material laid over the base course.

- In case of Nadigaon-Seondha MDR, moorum metal laid in the upper layer of Granular Sub Base (GSB) over lower layer (subgrade) was treated as lower layer (subgrade) due to its inferior quality (California Bearing Ratio) than the norms. It was further noticed that subsequently (August 2015) majority of the work done by the Concessionaire was damaged.
- In case of Garakota-Rehli-Devri MDR, the Concessionaire did not lay Concrete layer of sub base below concrete layer of Pavement where existing pavement in central portion was of Bituminous layer. The design of rigid pavement was also pending. Subsequently, open cracks in rigid pavement were observed at number of places. Further scrutiny revealed that oversize material than the requirement was used resulting in inadequate compaction of GSB layer. Dense Bituminous Macadam (DBM) layer was also not as per job mix formula recommended for DBM design. Wet Mixed Macadam (WMM) layer was laid with lesser thickness of 50 mm at km 40.180 and 100 mm at km 40.130 respectively against approved thickness of 250 mm, thus impacting the riding quality of road for users.
- IRC: SP 73 provided for construction of sub base (lower layer) by adopting cement treated soil sub base as GSB (upper layer). In case of Betul-Sarni-Parasia SH, the Concessionaire adopted 200 mm thick cement treated base course (upper layer) instead of sub base course erroneously for construction of 32 km length of road. As a result of using cement treated soil as a base course, cracks in surface of road were noticed.

The Company stated (May 2019) that the Concessionaire has chosen cement treated base design concept and as per Concession Agreement, he is responsible for maintaining project during operation period. The reply does not address issue relating to cracks in surface of road resulting in reduction in level of service to road users.

- In respect of Ratlam–Sailana–Banswada SH, Audit observed that the electrical poles which were to be erected at the extreme end of the road at Sarvan and Dhamnod bypass, were actually erected on the shoulder and road edge, which indicated that the utility shifting work was not properly executed and monitoring of BOT road projects was deficient to that extent.

The Company stated (September 2019) that the defect has been rectified before making payment. The reply is not acceptable as the defect continued even after completion (27 June 2015) of the project, which also shows deficient monitoring of execution of projects by the Company.

All the above instances indicated that the Company has accepted the sub-standard work. Thus, due to inadequate monitoring, the quality of road as per the Concession Agreement could not be ensured.

Acceptance of average quality surface of roads

4.1.33 Paragraph 5.4.3 of IRC-SP:73-2007 provides that the constructed roads should satisfy the standard of roughness¹³¹ and should not be more than 2,000 mm per km for good quality of road. During the operation period, the roughness of surface of road should not exceed the values specified in the Schedule-K of Concession Agreement. Schedule-K of MCA specified

¹³¹ Measured by calibrated Bump Integrator (BI).

roughness value of 2,750 mm per km. In case of deviations, the Concessionaire was required to restore the riding quality to 2,000 mm per km by renewal/ overlaying.

However, Audit noticed that in the Concession Agreements, the Company, without recording reasons, included the above norms of roughness upto 3,000 mm per km instead of 2,750 mm per km (as per MCA), which was applicable for average quality of roads instead of good quality.

Test-check of half yearly Bump Indicator (BI) reports (2016-18) of nine projects¹³² (five MDRs and four SHs) revealed that roughness indices of seven¹³³ out of the above nine road projects were more than the prescribed limit of 2,750 mm per km. It was further noticed that in case of Indore-2 project, roughness indices reported in November 2016 were more than roughness indices of May 2016 indicating that the surface of road was deteriorating, and not being maintained by the Concessionaire as per norms during operation period. However, the Concessionaires did not overlay/ renew these roads during operation period.

Thus, due to inclusion of norms of roughness upto 3,000 mm per Km instead of 2,750 mm per Km, road users were compelled to use average quality of roads besides Concessionaires were allowed to forgo the liability of renewal/ overlay.

The Company stated (November 2019) that as per IRC norms the roughness of 2,000 mm per Km is for acceptance criteria for newly constructed flexible pavement and during operation period due to wear and tear over long period of uses, the norm of roughness value up to 3,000 mm per km. Reply is not acceptable as MCA specifically provided for maintaining roughness indices during operation period upto 2,750 mm per km for maintaining good quality of road which was not done.

Poor maintenance of road during operation period

4.1.34 As per Clause 17.2 of Concession Agreement, during the entire operation period, the Concessionaire was required to maintain the roads in accordance with the maintenance requirements set forth in Schedule-K of Concession Agreement. In case of defect or deficiency, the Concessionaire was required to repair/ rectify the same within specified time. During joint physical verification of nine¹³⁴ out of 16 completed road projects, following deficiencies in maintenance of roads as per requirements mentioned in Schedule-K were noticed.

- Potholes and cracks in more than five *per cent* of road surface in a stretch of one km were observed in four roads (Indore-1, Indore-SH1, Narmadapuram-SH1 and Rewa-NH1).

¹³² Narmadapuram-SH1, Indore-5, Sagar-1, Sagar-SH2, Indore-2, Bhopal-1, Gwalior-SH1, Ujjain-SH2 and Gwalior-2. Records relating to BI tests of Indore-1, Rewa-NH1, Indore-SH1 and Rewa-SH4 projects were not made available.

¹³³ Narmadapuram-SH1, Indore-5, Sagar-1, Sagar-SH2, Indore-2, Ujjain-SH2 and Gwalior-2.

¹³⁴ Indore-1, Indore-SH1, Narmadapuram-SH1, Sagar-3, Sagar-1, Sagar-SH2, Rewa-NH1, Ujjain-SH3 and Gwalior-SH1.

- Debris from shoulders were not removed by the Concessionaires in seven roads (Indore-1, Indore-SH1, Narmadapuram-SH1, Sagar-SH2, Rewa-NH1, Ujjain-SH3 and Gwalior-SH1).
- Damage to profile, loss of retro-reflectivity of road side furniture was noticed besides poor visibility in the nine roads.
- Tree plantation and rest areas of the roads were not maintained as per requirement.
- Shoulders, side slopes, drains and culverts were not maintained as per requirement in case of all nine roads.
- Damage or deterioration in crash barriers in three roads (Indore-1, Indore-SH1 and Narmadapuram-SH1) was observed.

Hence, failure of the Company to effectively monitor maintenance of roads by the Concessionaire during operation period and to insist corrective action in time, as a result, users were compelled to use average quality of roads.

The Company stated (September 2019) that officials of the Company inspects the roads from time to time and discussed in project review meetings. Reply is not acceptable as inspite of inspection by the Company officials and project review meetings, deficiencies in maintenance of roads as per requirements mentioned in Schedule-K were noticed.

Non-appointment of Safety Consultant

4.1.35 Clause 18.1.2 of Concession Agreement provides for appointment of Safety Consultant by the Company, who was responsible for carrying out safety audit of the roads and ensure compliance with safety requirements. Costs and expenses on works and services arising out of Safety Requirements was to be met from a dedicated Safety Fund, which was operated by the Company in which 0.25 *per cent* of the Total Project Cost is deposited by the Concessionaire within 180 days of the Project Completion Date.

Audit observed that the Company has not conducted safety audit in respect of any of the BOT road projects selected for detailed scrutiny. Further, in case of eight projects¹³⁵, negative change of scope of ₹ 24.53 crore for reduction in item of works i.e. overlaying on existing pavement instead of reconstruction, widening of bridges/ slap culverts instead of their reconstruction and execution of roads in lesser width, etc. were approved by the Company without conducting Safety Audit.

Safety fund also cannot be considered as utilised optimally as upto 31 March 2018, the Company received an amount of ₹ 10.69 crore in Safety Fund, out of which only ₹ 6.23 crore was used and balance amount of ₹ 4.46 crore was lying unutilised.

Thus, due to non-appointment of Safety Consultant, Safety Audit was not conducted. Further, the Company allowed negative change of scope without assuring safety measures and as a result, the safety of road users was compromised to that extent.

¹³⁵ Gwalior-2, Sagar-SH2, Indore-SH1, Indore-1, Indore-2, Ujjain-SH2, Indore-3 and Bhopal-1.

The Company accepted (September 2019) that the process for appointment of Safety Consultant was under process and tenders will be invited shortly.

Delayed engagement of Independent Engineers

4.1.36 As per Concession Agreement, the Company was required to appoint Independent Engineer (IE) within 90 days from the date of the Concession Agreement (Clause 23.1). The role and functions of IE *inter alia* included review of the Drawings at planning stage of work, inspection and monitoring of work during construction, conduct tests on completion of construction and issue Completion Certificate (Schedule-Q).

However, it was noticed that in nine¹³⁶ out of 12 terminated projects and 11¹³⁷ out of 16 completed projects, the Company appointed IE with delays ranging from 13 days (Ujjain-SH3) to 681 days (SH-23). The reasons for delay in appointment of IE were delay in initiating tendering procedure and retendering for engagement of IE by the Company. Thus, delayed appointment of IE resulted in non-availing specialised services at planning stages of projects before start of execution of works. This has also contributed to irregular change in scope of work of ₹ 32.78 crore as discussed in *Paragraph 4.1.18*.

The Company stated (September 2019) that there was delay in achievement of Financial Closure by the Concessionaires, resulting in delay in declaration of Appointed Date and the Concessionaires did not start construction activity upto Appointed Date. Reply is not acceptable because as per Concession Agreement, IE was required to undertake a detailed review of the Drawings to be furnished by the Concessionaire even before Appointed Date. Moreover, in case of five projects¹³⁸, IEs were appointed by the Company even after the date of Financial Closure.

Non-issuance of Vesting Certificate

4.1.37 Clause 38 of Concession Agreement provided that upon termination of Concession Agreement, the Concessionaire shall comply with the Divestment requirements and IE shall verify the roads and defaults, if any, in the maintenance requirements, shall be cured by the Concessionaire. Further, it was provided that the Company shall issue a Vesting Certificate, which will lead to divestment of rights, title and interest of the Concessionaire in the project to the Company.

However, in none of the terminated projects, such verification/ testing was done by IE before termination and no Vesting Certificate was issued by the Company. As a result, in case of four¹³⁹ out of 12 terminated projects, the Company while completing the balance work through EPC contractors, paid

¹³⁶ Gwalior-IX, Gwalior-SH-2, Gwalior-VIII, Jabalpur-VI, Rewa-NH-75 (1), Rewa-NH-75 (2), Sagar-SH-37, SH-23 and SH-54. Records of Chhindwara-MDR and Jabalpur-NH-12 projects were not made available to Audit.

¹³⁷ Bhopal-1, Indore-2, Indore-5, Indore-SH1, Rewa-NH1, Rewa-SH4, Sagar-1, Sagar-3, Sagar-SH2, Ujjain-SH2 and Ujjain-SH3.

¹³⁸ Gwalior-SH-2, Rewa-NH-75 (1), Sagar-SH-37, SH-23 and Indore-SH1.

¹³⁹ Jabalpur-VI (₹ 8.29 crore), Rewa-SH4 (₹ 2.99 crore), Gwalior-IX (₹ 8.72 crore) and Gwalior-VIII (₹ 1.07 crore).

₹ 21.07 crore for the length of different layers of roads (ranging from 0.74 km to 9.83 km), which were reported¹⁴⁰ to be completed by the Concessionaires.

The Company stated (September 2019) that since, IE has evaluated the physical work done by the Concessionaire, there was no need to issue Vesting Certificate. The reply is not acceptable as there was no clause in the Concession Agreement for exemption from issuing Vesting Certificate.

Thus, due to non-issuance of the Vesting Certificates, the Company did not have evidence of divestment in case of any terminated project. This may also lead to future legal dispute arising out of disputes, if any, as to rights, title and interest in projects.

Recommendation: The Company should ensure that proper monitoring mechanism is put in place to monitor the progress of the projects and quality of road is executed as per provisions of the Concession Agreements and adherence of time lines prescribed therein.

Conclusion

- Records which formed the basis for selection of road projects for upgradation were not made available, hence, Audit could not assure that the planning for road projects were made after following due diligence.
- Selection of PPP mode was not decided on the basis of outcome of the feasibility studies, defeating objectives of conducting Feasibility Studies to that extent.
- The Company adopted deficient Feasibility Reports at their face value without carrying out their independent verification through respective Divisional Offices. As a result, the projects were delayed and project costs were increased.
- The Company did not adhere to RFQ provisions for selection of Concessionaires and EPC contractors and accepted formation of SPV with lower equity than the requirement. This contributed to slow execution of works. The Company terminated the Concession Agreements and awarded the balance works on EPC basis instead of BOT mode, defeating the objective of BOT.
- There were various procedural lapses on the part of the Company in retaining the deficient clause of 'Performance Security' resulting in non-recovery of damages for delay in submission of Performance Security and Financial Closure.
- The Company did not recover damages from the Concessionaires towards delay in achievement of project milestones.
- The Company did not adopt MCA for fixation of completion period, for which reasons were not on record. Had the Company adopted MCA for fixation of completion period, the Company could have saved bonus paid to the Concessionaires.

¹⁴⁰ As per the reports of IE.

- The Company made payment of change of scope to 11 Concessionaires for increase in items of works of roads and structures, though the items of works were already incorporated in detailed schedule of work of Concession Agreement.
- Provisional Completion Certificates of eight project were issued without ensuring completion of total length of carriageway, construction and widening of bridges, works of bituminous concrete, shoulders, etc.
- There was absence of prompt monitoring system in operation of Escrow Account and there were instances where LIEs have reported higher progress of work than as intimated by the IE. The Company did not obtain LIE reports and thus, failed to reconcile the differences between the them. This led to disbursement of higher loan amount to the Concessionaires, which subsequently resulted in Non-Performing Assets due to non-repayment of debt by the Concessionaires in respect of terminated projects.
- The Company did not establish Projects Monitoring Unit and Performance Review Unit at the Company/ State Government level, which affected prompt and effective monitoring of BOT road projects.
- Targets for supervision of roads by technical officers deployed at divisions were unrealistic and were not in synchronisation with the actual manpower deployed.
- Joint physical verifications of the nine roads revealed various deficiencies in the maintenance and quality parameters of roads.

