Chapter - V

5. Performance Audit on PSUs (other than Power Sector)

5.1. Performance Audit on 'Development of State Highways through Public Private Partnership by Karnataka Road Development Corporation Limited'

Executive Summary

Introduction

Karnataka Road Development Corporation Limited (the Company) was incorporated (July 1999) as a wholly owned Government of Karnataka (GoK) Company under the Companies Act, 1956. The objectives of the Company were to construct, erect, build, develop, improve and maintain, express routes and roads and bridges, sideways, tunnels, *etc.*, under Build Own Transfer (BOT) or Build Own Operate Transfer (BOOT) or Build Own Lease Transfer (BOLT) or Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) schemes or otherwise in a manner which will facilitate the above mentioned works, and to decide, levy and collect toll/service charges.

Audit Objectives

The objectives of the Performance Audit were to assess whether:

- the conceptualisation and selection of the PPP projects were done in line with the norms/guidelines of GoI/IBRD; and
- the PPP projects were planned and implemented economically and efficiently, and post implementation monitoring was effective and the envisaged benefits were realised.

Audit Findings

- The approvals for taking up of the five of six projects through World Bank Co-financing under PPP mode were in deviation from the decision taken in respect of KSHIP projects, wherein it was decided to execute the projects with negative VfM and Equity IRR of more than 18 *per cent*, under EPC mode. The deviation had resulted in an additional outflow of annuity by ₹ 80.16 crore in two out of six projects over the concession period of eight years. (*Paragraph 5.1.10.2*)
- As per the traffic survey conducted by the Company at 13 locations/chainages, traffic volume of the six projects taken up under the World Bank Co-financing ranged between 1,630 PCUs and 4,508 PCUs and it did not touch the bench mark of 5,000 PCUs fixed by GoI. However, the traffic volume was not considered as the criteria while approving these six projects under PPP. (*Paragraph 5.1.10.3*)

- The GoK approved and developed four-laning of Stretch-I and two-laning for Stretch-II of Bellary City-Andhra Pradesh (AP) border road in the year 2010 and 2013 respectively, against the recommendation as per traffic survey for the year 2020 and 2024 respectively, overlooking the traffic survey projections and the norms of Planning Commission. As a result, the Company incurred an additional expenditure of ₹ 29.53 crore. (*Paragraph 5.1.11*)

- Award of contract at higher VGF than that approved by the GoI resulted in an additional budget outflow and benefit to the Concessionaire to the extent of ₹ 22.81 crore. (*Paragraph 5.1.12*)

- There was delay in initiation of land acquisition in respect of six projects taken up under World Bank Co-financing. As a result, the Company concluded Concession Agreements (CA) with delay of twelve to twenty-one months from the date stipulated in the Procurement Plan. (*Paragraph 5.1.13.1*)

- In two projects, road users were put into inconvenience, despite toll being collected, due to non-completion of intermittent stretches at 12 chainages for a total length of 16.480 kms in Yelahanka - A.P border road and Rail Over Bridges (ROBs) in Dharwad-Alnavar-Ramnagar road. (*Paragraphs 5.1.13.2* and *5.1.13.3*)

- The Company/Concessionaires did not adhere to the terms of the CA in VGF/Annuity projects with respect to the safety requirements at design, completion and operation and maintenance stages. In the absence of any assessment of the accident potential and safety performance, there was no assurance that the safety requirements were not compromised in these roads and the cost of complying with such safety requirements were also not de-scoped and recovered from the Concessionaires. (*Paragraph 5.1.14*)

- The Concessionaire of Dharwad-Alnavar-Ramnagar road, who was required to remit ₹ 32 crore to the safety fund under the change of scope, did not remit the amount, pending issue of orders by the Company. Similarly, no action was taken to finalise the change of scope in respect of Yelahanka-AP border road, Bellary City-AP border road and five World Bank Co-financed projects, thereby giving advantage to the Concessionaires, who were required to remit 80 *per cent* of the cost of the de-scoped works to the safety fund. (*Paragraph 5.1.15.1*)

- The Company incurred avoidable expenditure of ₹ 17.39 crore on two projects (Yelahanka - A.P border and Ginigere-Gangavathi-Sindhanur road) by including unwarranted works in the scope of the projects. (*Paragraphs 5.1.16.1* and *5.1.16.2*)

- The Company failed to avail loan assistance of ₹ 9.43 crore from IBRD causing annual additional interest burden of ₹ 56.58 lakh to the State Government. (*Paragraph 5.1.17*)

- The use of fly ash was not considered in three projects, *viz*. Bellary City-AP border, Ginigere-Gangavathi-Sindhanur, and Bidar to Chincholi road, though they fell within the limits of specified distance from the thermal power stations, thereby defying the directives of MoRTH/MoEF for promoting the utilisation of fly ash. (*Paragraph 5.1.18*)

- The toll rates for two projects were determined as per the model notification annexed to the CA, instead of approved GoK toll notification, 2009. This resulted in recurring avoidable burden on the users and extension of undue benefit to the Concessionaires. The excess user fee collected during April 2018 to December 2018 for Wagdhari-Ribbanapalli road and during April 2018 to March 2019 for Dharwad-Alnavar-Ramnagar road worked out to ₹ 6.24 crore and ₹ 1.24 crore respectively. (*Paragraph 5.1.19.1*)

- The Concessionaire of Dharwad-Alnavar-Ramnagar road was allowed to levy and collect the toll from the users for the stretch of 23.20 kms, which has carriage width of 5.5 meters. This was in violation of the toll notification, 2009 issued by GoK. The excess collection during April 2018 to March 2019 worked out to ₹ 1.41 crore. This was an unwarranted recurring burden on users and benefit to the Concessionaire. (*Paragraph 5.1.19.2*)

- The Company delayed the commencement of toll collection in respect of five projects executed under World Bank Co-financing by five to eleven months. This resulted in loss of potential revenue of ₹ 35.86 crore. (*Paragraph 5.1.19.3*)

- The Company had neither conducted annual traffic sampling nor the toll collection systems at the toll plazas were connected with the network of the Company. There was no means to ensure that the Concessionaire was not given undue advantage, if any, in terms of increased revenue due to increase in traffic than that projected. (*Paragraph 5.1.20*)

- The Concessionaires did not adhere to the conditions of the CA relating to operation and maintenance of roads, causing inconvenience to the road users. The Company also failed to initiate action as per the terms of the CA to undertake maintenance work at the risk and cost of the concessionaire and to levy damages (*Paragraph 5.1.21*)

- Monitoring was absent during pre-project implementation of six projects implemented under World Bank Co-financing as the Performance Review Unit (PRU) under the Chairmanship of the Additional Chief Secretary, IDD, GoK and the Project Monitoring Unit (PMU) at the Company level were constituted only after concluding the CAs for the projects. Also, PMU has not submitted monthly reports to PRU on project implementation. The GoK did not appoint the State Road Regulatory Authority, which was not in line with the recommendations of the Expenditure Reforms Commission, GoK. (*Paragraph 5.1.22*)

Introduction

Picture No. 5.1.1: World Bank Co-financed (Bidar to Chincholi) project road developed by company.

5.1. Karnataka Road Development Corporation Limited (the Company), Bengaluru was incorporated (July 1999) as a wholly owned Government of Karnataka (GoK) Company under the Companies Act, 1956. The objectives of the Company were to construct, erect, build, develop, improve and maintain, express routes and roads and bridges, sideways, tunnels, *etc.,* under Build Own Transfer (BOT) or Build Own Operate Transfer (BOOT) or Build Own Lease Transfer (BOLT) or Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) schemes or otherwise in a manner which will facilitate the above mentioned works, and to decide, levy and collect toll/service charges.

The fund requirements for the projects taken up by the Company were sourced through the State budgetary support, Viability Gap Funding (VGF) by Government of India (GoI) and GoK, World Bank, borrowings from financial institutions, Toll collections, *etc*.

Organisational setup

5.1.1. The Company functions under the administrative control of Public Works, Ports and Inland Water Transport Department (PWP&IWTD), GoK. The Management of the Company was vested with the Board of Directors (BoD) consisting of twelve directors including Chairman and Managing Director. The Company had five project offices located at Davanagere, Hassan, Hubballi, Kalaburagi and Mysuru, each headed by an Executive Engineer/Assistant Executive Engineer.

Public Private Partnership Projects

5.1.2. The Infrastructure Policy, 2007 of GoK facilitated an increasing role for Public Private Partnership (PPP), both in creating new infrastructure assets as well as in managing assets already created, to derive benefits *inter-alia* savings in costs through innovative designs, timely project implementation and higher efficiencies in operations, that would deliver better value for money and enhanced quality of services to the users by way of better managerial practices and efficiencies.

The PWP&IWTD is the primary State Governmental body responsible for all public works including buildings, roads[113], ports and inland waterways, while

[113] The Gram Panchayat Engineering Division and Karnataka Rural Road Development Agency coming under the Department of Rural Development and Panchayat Raj of GoK are responsible for construction and maintenance of rural roads.

Karnataka State Highways Improvement Project[114] (KSHIP) and the Company focus exclusively on construction or rehabilitation, upgrading or improvement of existing roads.

5.1.3. The following institutional mechanism is in place at the State Government level for project appraisals and approvals:

Chart No.5.1.1: Appraisal and approval mechanism of PPP projects

Project evaluation	VGF/Anuity projects	WB funded projects
• Infrastructure Development Corporation (Karnataka) Limited assists the departments concerned in evaluation of projects under PPP. • PPP Cell headed by the Principal Secretary, Infrastructure Development Department (IDD) is the nodal agency to receive proposals in respect of projects taken up under PPP and place before Single Window Agency (SWA) and State High Level Committee (SHLC) for approval.	• SWA under the Chairmanship of the Chief Secretary approves the projects costing upto ₹ 50 crore. • SHLC headed by the Chief Minister examines and approves the projects costing beyond ₹ 50 crore. • The Empowered Institution headed by the Secretary, Department of Economic Affairs (DEA), GoI clears the VGF projects proposed by the State Government.	• Project Governing Board (PGB) headed by the Chief Secretary to the GoK approves projects costing > ₹ 200 crore. • Steering Committee headed by the Principal Secretary to GoK, IDD approves projects upto ₹200 crore and recommends the projects and policy matters to the PGB for approval.

Scope of Audit

5.1.4. The scope of this Performance Audit was to examine the PPP projects implemented by the Company for development of State Highways during the years 2014-15 to 2018-19. The details of projects implemented by the Company under PPP are given in ***Appendix-20***. The Company implemented 12 projects[115] having total length of 788.74 kms at a total project cost of ₹ 2,670.73 crore. Out of the above 12 projects, the Company implemented two projects under BOT (Annuity), four projects under BOT/DBFOT (Toll) through VGF, and six projects under Hybrid Annuity[116] through World Bank Co-financing.

[114] KSHIP is a project implementation unit of PWP&IWT Department of GoK set up for improvement of road network of the State with assistance from World Bank (International Bank for Reconstruction and Development-IBRD).

[115] Excluding project at Sl.No.7 of ***Appendix-20***, which was not executed as the financial closure was not achieved.

[116] Under Hybrid Annuity mode, 40 *per cent* of the total project cost was provided as lump sum grant in equal ratio (20 *per cent* each) by the International Bank for Reconstruction and Development (IBRD) and the Company. The remaining 60 *per cent* of the cost was invested by the Concessionaires, which was reimbursable from the Company in the form of semi-annuity during the concession period of eight years. The Company was entitled to collect and retain the toll revenue in all these six roads.

Audit reviewed only Operation and Maintenance aspect of four projects[117] completed prior to 2014-15 (Sl.No.1, 2, 3 and 4 of ***Appendix -20***) and the project implementation of the remaining eight projects executed during 2014-15 to 2018-19 (Sl.No.5, 6 and 8 to 13 of ***Appendix -20***).

Audit Methodology

5.1.5. The methodology adopted for audit involved explaining the Audit Objective and Criteria to the top Management of the Government and the Company through an Entry Conference, which was held on 11 February 2019. Audit scrutinised the records at the Corporate Office and Project offices of the Company and at the PWP&IWTD. The methodology also involved interaction with the personnel of the audited entity (the Company) and PWP&IWTD, analysis of data, collection of information through audit requisitions, issue of audit queries and issue of Draft Performance Audit Report to the Management and the Government. The Government furnished replies to the Draft Performance Audit Report in January 2020. The Audit Report was discussed with the Government in the Exit Conference held on 10 January 2020 and the views of the Government are suitably included in the Report.

The Performance Audit was conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Audit Objectives

5.1.6. The objectives of the Performance Audit were to assess whether:

- the conceptualisation and selection of the PPP projects were done in line with the norms/guidelines of GoI/IBRD; and

- the PPP projects were planned and implemented economically and efficiently, post implementation monitoring was effective and the envisaged benefits were realised.

Audit Criteria

5.1.7. The Audit criteria for assessing the audit objectives were derived from the following sources:

- Guidelines/norms issued by the Planning Commission, Ministry of Environment and Forest and Climate Change (MoEF & CC), GoI;

- Guidelines/norms of GoK, Land Acquisition Act, 1894 and 2013, Karnataka Private Investment Project (Road Toll or user fee Determination of Rates and Collection), Notification 2009 and 2015;

[117] Of which one project, *viz*., Bellary City-AP border Road, which was completed in March 2013, was transferred to the Company *vide* Government Order (GO) dated September 2011 subsequent to concluding the Concession Agreement (August 2010) by PWP&IWTD. As this project was not reviewed earlier by audit, all transactions (except tendering and awarding) have been reviewed in the present Performance Audit.

- Guidelines of International Bank for Reconstruction and Development (IBRD), Loan Agreements and Project Agreements signed with IBRD, Project Appraisal Document, norms of Indian Road Congress (IRC), specifications of Ministry of Road Transport and Highways (MoRTH) and National Highway Authority of India (NHAI);

- Traffic study reports, Feasibility study reports, Detailed Project Reports (DPR), Contract documents, Concession Agreements, Operation, Maintenance and Development (OMD) Agreements/Manuals.

Acknowledgement

5.1.8. Audit acknowledges the co-operation extended by the PWP&IWT Department of the GoK and the Management of Karnataka Road Development Corporation Limited in facilitating the conduct of the Performance Audit.

Audit findings

5.1.9. The detailed audit findings are discussed in the subsequent paragraphs under five broad sections, *viz*. i. Inconsistencies in selection of projects, ii. Execution of projects, iii. Levy and collection of toll, iv. Operation and maintenance and Post implementation monitoring, and v. Outcome analysis. The observations included under the first section, *viz.* 'Inconsistencies in selection of projects' cover the first audit objective, while the next four sections deal with the second audit objective.

Inconsistencies in selection of projects

5.1.10. Audit findings on approval of projects with reference to norms of GoI, *viz*. Value for Money, Equity IRR and other criteria such as traffic projections and approved VGF are discussed in ***Paragraphs 5.1.10.1* to *5.1.12***.

Non-consideration of prescribed criteria during approval of projects/accepting bids

5.1.10.1. As the budgetary support from GoK and GoI were insufficient for development of roads, the State identified the roads which could be co-financed by the World Bank (IBRD). These projects were then executed by KSHIP[118] (refer ***Paragraph 5.1.2***) and the Company. The Company executed six projects (**Sl.No.8 to 13 of *Appendix-20***) under World Bank Co-financing through Hybrid Annuity model. As per the conditions for financing, the parameters for evaluation of projects were Value for Money (VfM), which is carried out to

[118] Karnataka State Highway Improvement Project (KSHIP) is a project implementation unit of PWP&IWT Department of GoK set up for improvement of road network of the State mainly with the assistance from World Bank. PWP&IWT Department of GoK is the primary State Governmental body responsible for all public works including buildings, roads, ports and inland waterways, while KSHIP and the Company carryout construction or rehabilitation, upgrading or improvement of existing roads. The Steering Committee and the Project Governing Board are the common decision making bodies for approving the projects executed by KSHIP and the Company under World Bank funding.

judge whether PPP is likely to offer better value for the public than traditional procurement.

Further, as per the norms[119] of MoRTH, GoI, a bid is acceptable if Equity IRR[120] is upto 18 *per cent*, and if Equity IRR exceeds 18 *per cent*, the project needs to be bid on Engineering, Procurement and Construction (EPC) mode. The norms also stipulated that if the traffic volume is less than 5,000 Passenger Car Units (PCUs), the project was required to be taken up on EPC mode.

Accordingly, the Company carried out VfM analysis of the six projects and determined the semi-annuity thresholds[121] for the purpose of bid evaluation. The Company, through the international competitive bidding, selected the Concessionaires based on the lowest semi-annuity quote. The details of the projects are indicated in the table below:

Table No.5.1.1: **VfM analysis for World Bank Co-financed projects**

(₹ in crore)

Sl. No.	Project	Total project cost	Semi-annuity threshold determined for bid evaluation	Semi-annuity quote accepted for award	Equity IRR for semi-annuity accepted (*per cent*)	VfM[122]
1	WCP-1	235.76	32.30	34.20	23.96	-15.48
2	WCP-2	226.20	30.20	24.99	16.00	43.65
3	WCP-3	276.93	37.60	26.28	25.06	95.21
4	WCP-5	219.94	29.80	19.62	23.74	85.61
5	WCP-6	205.13	27.40	17.73	22.96	80.90
6	WCP-7	204.92	28.30	31.41	22.90	-25.80

***WCP – World Bank Co-financed Project; WCP-4 is not executed by the Company.**

Overlooking Equity IRR/VfM criteria

5.1.10.2. The Steering Committee/PGB, while approving (July 2015/August 2015) the above projects under PPP, considered only VfM as the criterion for accepting or rejecting the bids, without considering Equity IRR. Besides, two of these six projects (WCP-1 and 7), which had negative VfM, were also approved at higher semi-annuity stating that the overall VfM of all the projects works out to be positive and the outflow of annuity due to negative VfM was not significant.

Audit observed that the above approvals were in deviation from the decision taken for the projects executed by KSHIP under the same World Bank Co-financing, wherein it was decided (December 2013) to execute those projects, which had negative VfM and Equity IRR of more than 18 *per cent*, under EPC mode. Further, approval of WCP-1 and WCP -7 based on overall VfM was also

[119] A committee headed by Shri B.K. Chaturvedi was constituted (August 2009) by the GoI to take a holistic look at financing needs and arrive at a financing plan that balances the needs of road sector and other priority areas of Government. The report of the Committee was accepted (November 2009) by the MoRTH, GoI.

[120] Internal Rate of Return (IRR) represents the time adjusted earnings over project life. Equity IRR measures the returns for the investors (equity holders), after the debt has been paid off.

[121] Semi-annuity is the amount that is to be paid half-yearly to the successful bidder (Concessionaire) over the period of concession based on the quotes accepted.

[122] VfM= Net Present Value of the differential semi-annuity of threshold determined and that quoted by the successful bidder.

not in order, as it was not the prescribed criterion and moreover this criterion was not adopted while approving the KSHIP projects despite overall VfM being positive in those projects[123] resulting in an additional outflow of annuity by ₹ 80.16 crore[124] over the concession period of eight years.

Non-consideration of Traffic Volume criteria

5.1.10.3. It was further observed that the traffic volume of the six projects (***Refer Table No. 5.1.1)*** as per the traffic survey conducted (September/October 2013) by the Company at 13 locations/chainages ranged between 1,630 PCUs and 4,508 PCUs and it did not touch the benchmark of 5,000 PCUs fixed by GoI. Audit, however, observed that this benchmark for traffic volume was not considered while approving the projects.

Moreover, the annual toll revenue of ₹ 55.62 crore as estimated (December 2015) by the Company from these six projects got reduced (by 77 *per cent*) to ₹ 13.04 crore[125] (December 2019) subsequent to completion of projects, making the projects unviable as the Company had to depend on State budgetary support for repayment of the loans borrowed for the projects. This otherwise was proposed to be met out of the revenue realised from the toll collections. Specific reasons for such drastic reduction in projected traffic revenue were not forthcoming from the records furnished.

Thus, the decision by the Steering Committee/PGB to approve the projects under PPP overlooking the norms of GoI led to the projects becoming unviable, and defeated the purpose of using the PPP mode for execution of the projects.

The Government replied (January 2020) that norms prescribed referred to annuity projects, whereas the projects under consideration were hybrid co-financing projects which was a mix of EPC and annuity format. These norms were prepared for NHDP projects, which are generally four-lane and above and carry substantial commercial traffic, while the traffic in the State Highways are generally local and agricultural. Further, rebidding on EPC route would have taken at least six months to one-year time with further escalation in cost.

The reply is not acceptable, as the norms deal with both two-lane and four-lane under BOT (Toll), BOT (Annuity) and EPC modes, while hybrid annuity is a combination of these models. In fact, the Steering Committee[126]/PGB, while approving KSHIP projects, had considered the norms applied to National

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[123] Four roads were executed under KSHIP-II and the VfM for these projects were: WAP1: ₹ 153.34 core; WAP2: ₹ 47.50 crore; WAP3: ₹ 37.51 crore; WAP4: (-) ₹ 27.68 crore. The overall VfM works out to (+) ₹ 210.67 crore.

[124] ₹ 1.90 crore (₹ 34.20 crore - ₹ 32.30 crore) + ₹ 3.11 crore (₹ 31.41 crore - ₹ 28.30 crore) = ₹ 5.01 crore x 16 semi-annuity instalments = ₹ 80.16 crore.

[125] The Company appraised (March/April 2019) the GoK of reduction in estimated annual toll revenue, while requesting grants for repayment of Vijaya Bank loan.

[126] The projects executed by the Company and the KSHIP were similar and executed under IBRD funding. The Steering Committee/PGB approved the projects executed by both these entities. The Steering Committee, headed by the Pr. Secretary to GoK, IDD, has the members from Planning and Statistics Department, Finance Department (budget & Resources), Finance Department (expenditure), PWP&IWTD, Managing Director of KRDCL, Chief Project Officer and Project Director of KSHIP.

Highways including criterion of Equity IRR and VfM and therefore applicability of MoRTH norms cannot be denied. It was unclear as to why the Steering Committee/PGB, which was the decision making body for both KSHIP and the Company, has followed two different standards for approving similar projects. Further, the traffic volume was to be determined based on number of PCUs, but not on type of vehicles (commercial, local, agricultural) as stated. It was also not justified to execute the projects under PPP violating the norms under the pretext that rebidding would take time.

Granting approvals in deviation from traffic survey projections

5.1.11. The Model Concession Agreement (MCA) on State Highways issued by the Planning Commission states that where traffic intensity is comparatively low, limited widening of highways should be undertaken with further planning for widening after seven to twelve years depending on the projected traffic growth.

The traffic survey conducted (July 2009) by the DPR consultant of the Bellary City-Andhra Pradesh border road, recommended two-laning for chainage km 1.500 to chainage km 10.000 (Stretch-I) in the year 2011 (projected traffic-6,267 PCUs) and four-laning in the year 2020 (projected traffic-15,495 PCUs). Similarly, the survey recommended two-laning from chainage km. 10.000 to chainage km. 27.170 (Stretch-II) in the year 2024 (projected traffic-6,251 PCUs) and four-laning in the year 2034 (projected traffic-15,014 PCUs). The DPR was prepared accordingly.

Audit made the following observations:

- The GoK approved (August 2010) for four-laning of Stretch-I and two-laning for Stretch-II in the year 2010 itself, against the recommendation as per the traffic survey for the year 2020 and 2024 for the respective stretches. The Concession Agreement (CA) was concluded (August 2010) accordingly for implementing the project through BOT (Annuity) mode with a total annuity pay out of ₹ 327.60 crore. The Provisional Commercial Operation Date[127] (PCOD) of the project was March 2013;

- The road was not part of the GoK's prioritised roads[128]. Moreover, as per the communication received from the Deputy Commissioner of Bellary District, the road was not an important link as it joins a small town (Alur in Kurnool district) in Andhra Pradesh and the traffic was not high;

- Development of road into four-lane (Stretch-I) and two-lane (Stretch-II) in 2013 itself instead of 2020 and 2024 respectively, was not in line with its own traffic survey projections but was also in violation of the MCA on State Highways issued by the Planning Commission. Consequently,

[127] Provisional Commercial Operation Date is declared after completion of 75 *per cent* of the total length of project highway, which entitles for collection of user charges through toll.

[128] GoK identified 10,000 kms of roads having 10,000 PCUs and entrusted to the Company for development. Bellary City-AP border road was not part of 10,000 kms.

the Company incurred an additional expenditure of ₹ 29.53 crore on account of advancement of widening the road;

- The Company, on completion of the project, conducted (September 2017) a traffic survey for commencement of tolling and estimated an annual potential toll revenue of ₹ 2.82 crore. However, the Company could not finalise the contract for toll collection through bidding as the responses were poor even after four calls (between October 2017 and March 2018). It was noticed that the average daily traffic of 5,183 PCUs estimated initially reduced to 2,385 PCUs. The reasons for such reduction were not on record.

Therefore, there was no necessity of conversion of road into four-lane (Stretch-I) and two-lane (Stretch-II) even in 2020. Thus, the Company should have taken decision of widening the road after revisiting the actual traffic in 2020.

The Government in its reply (January 2020) stated that the four-lane road in the Stretch-I was considered in the beginning of the project itself due to strategic connectivity of the road to the green field airport, heritage sites and future economic activity in the region. If the project had been developed with two-lanes in 2013, the necessity of taking up of augmentation work for four-laning would have arisen within five years by 2018 to keep the road open for traffic by 2020 and developing in phases within short gap is not beneficial as it increases the investment and logistic costs. It was also stated that the Company was unable to engage toll contractor even after four calls as there could be a viability issue due to smaller length of road (29 kms).

The reply is not acceptable, as the Company overlooked its own survey projections, thereby defeating the very purpose of conducting a survey. Secondly, the Company's argument that four-lane was constructed due to strategic connectivity of the road is not supported by the facts as the Deputy Commissioner had indicated that there was low intensity of traffic. This has been proved by the fact that the Company could not get a contractor for collecting the toll as it was unviable. Thirdly, widening of road much ahead of requirement was not in line with the MCA issued by the Planning Commission.

Approval of project at higher VGF

5.1.12. The Company's initial proposal for implementation of Yelahanka-AP border road submitted (January 2013) to the DEA, GoI at a total project cost of ₹ 380.85 crore with VGF of 40 *per cent* was returned (February 2013) stating that the project was viable with VGF at 30 *per cent* of the total project cost. But, the Company revised the proposal at VGF of 34 *per cent* and re-submitted (March 2013) for approval. The DEA, gave (April 2013) in principle approval to the revised proposal and agreed to release its share of VGF of ₹ 76.17 crore, being 20 *per cent* of the total project cost of ₹ 380.85 crore. The balance VGF of 14 *per cent* (₹ 53.32 crore) of the total project cost was to be borne by the GoK.

The bids invited (July 2013) on the basis of the lowest VGF required by the bidder for implementing the project had no response in the initial two tenders.

In the third attempt (February 2014), the contract with the lowest VGF of 39.99 *per cent* (₹ 152.33 crore) was awarded (January 2015) to M/s. Ramalingam Construction Company Private Limited.

As the DEA, GoI returned (February 2013) the initial project proposal (January 2013) of the Company when the VGF was projected at 40 *per cent*, awarding the contract at a higher VGF was not justified and amounted to extension of benefit to the Concessionaire as his investment was reduced by that extent. As a result of award of contract at higher VGF than that approved by the GoI, there was an additional budget outflow to the extent of ₹ 22.81 crore (5.99 *per cent* of ₹ 380.85 crore). As the project was unviable due to higher VGF, the Company should have executed the project under EPC mode as per the existing norms of GoI.

The Government replied (January 2020) that 34 *per cent* was only an estimate, while price discovery takes place through a bidding process. The cost and the traffic projections of Concessionaires could vary from the Company's estimate for various reasons and therefore 34 *per cent* may not be taken as sacrosanct until the bid process is completed.

There is no denial of the fact that the cost and traffic projections of the Concessionaire might vary from the estimate. But the bench mark for VGF was fixed considering the financial viability of the project, which was pegged at 34 *per cent*. Therefore, awarding the contract at 39.99 *per cent* overlooking the communication from GoI was not justified.

To summarise the observations under 'Inconsistencies in selection of projects', audit concludes that the decisions for approving the projects were inconsistent and not in line with the norms of GoI. The available inputs, such as financial parameters, traffic survey projections, viability of projects, *etc* were overlooked while arriving at decisions in eight out of twelve projects reviewed by audit.

Execution of projects

5.1.13. Audit findings on land acquisition, execution of roads, enforcement of conditions of CA on safety requirements, change of scope, inclusion of additional works and compliance to the norms on usage of fly ash for construction of roads are discussed in ***Paragraphs 5.1.13.1* to *5.1.18***.

Delay in procurement process

5.1.13.1. As per the Procurement Plan drawn by the Company for the six projects executed under World Bank Co-financing, CA was to be concluded in December 2014 and Financial Closure/ Appointed Date[129] was to be achieved in June 2015 for all the six projects. Further, as per the terms of the CA, the Financial Closure was to be achieved by the Concessionaire within 180 days

[129] 'Financial Closure' is the date on which financing documents for funding by lenders becomes effective and the Concessionaires get immediate access to such funds. 'Appointed Date' is the date on which financial closure is achieved or an earlier date which both the Parties may determine by mutual consent, and shall be deemed to be the date of commencement of the concession period.

from the date of CA and the Company was to handover 80 *per cent* of the project site on or before Appointed Date[130].

Audit observed delays in concluding CAs and achieving Financial Closure/Appointed Date, due to delay in initiating land acquisition process by the Company. It was observed that though the roads were identified for development in May 2011[131] and the loan agreement and project agreement with IBRD were concluded to that effect, the Company initiated the process of land acquisition only between September 2014 and October 2017 and final notification for possession of the land was issued between August 2016 and February 2019. This was due to delay in formation of land acquisition cell (2012), engagement of personnel required (2014) and approval (2015) of Resettlement Action Plan (RAP).

As a result, the Company concluded CAs only in December 2015 for five projects (WCP-1, 3, 5, 6 and 7), and in October 2016 for one project (WCP-2), with delays of twelve to twenty-one months from the date stipulated in the Procurement Plan. Resultantly, Appointed Date was declared only in September/October 2016 for five projects (WCP-1, 3, 5, 6 and 7) and in August 2017 for one project (WCP-2). The delay with reference to Procurement Plan was 15 months for five projects and 26 months for one project.

The Government replied (January 2020) that a tentative procurement schedule was prepared after the roads were identified and shared with World Bank in the earliest instance even before DPR preparation. The evaluation process took time as the six projects were launched at one-go and land acquisition could not be completed due to certain issues beyond the control of the Company.

The reply is not acceptable, as the Company did not ensure timely formation of land acquisition cell, engagement of personnel, approval of RAP which caused delay in issuing preliminary notifications for acquisition and consequent delay in declaring Appointed Date. As the Company could acquire land within two years from the date of issue of preliminary notifications, early action on this could have expedited the process. Due to the cascading effect of delay at various stages, the completion has been deferred and thus the users were deprived of improved road conditions for 15 months in five roads and 26 months in one road.

Failure to provide hindrance-free road to users

5.1.13.2. The PCOD for Yelahanka - A.P Border road was issued in September 2018 on completion of 55.522 kms (75.76 *per cent*) of the total length of project highway and the Concessionaire commenced the collection of user fee from the date of issue of PCOD (September 2018) as per the terms of the CA. Audit

[130] Appointed Date, which is the date reckoned for commencing the concession period, is declared after achieving the financial closure by the Concessionaire and fulfilment of obligations (handing over of 80 *per cent* of the land) by the Company.

[131] loan agreement between GoI and IBRD and the project agreement between GoK and IBRD were concluded in May 2011 for co-financing the six projects implemented by the Company. The length of roads to be developed by the Company was included in the Project Appraisal Document, which was part of the loan and project agreements concluded with IBRD.

observed that certain intermittent stretches at 12 chainages for a total length of 16.480 kms (22.51 *per cent*) were pending completion due to incomplete land acquisition (May 2019) as indicated below:

Table No.5.1.2: Incomplete intermittent stretches

Sl. No.	Incomplete chainages	Number of Kms
1	23+080 to 23+500	0.840
2	24+570 to 25+000	0.430
3	26+860 to 27+000	0.140
4	35+700 to 35+820	0.240
5	36+260 to 36+480	0.440
6	37+650 to 38+060	0.410
7	48+100 to 48+500	0.800
8	51+920 to 54+000	4.160
9	73+220 to 75+960	5.480
10	79+400 to 80+360	1.920
11	82+040 to 82+450	0.820
12	84+820 to 85+220	0.800
	Total	**16.480**

It could be seen from the incomplete stretches that there were hindrances at frequent intervals of chainages. These incomplete stretches included certain major works, *viz*. two Rail Over Bridges, one major bridge, four minor bridges, 19 cross drainage structures and bypass at Gowribidanur. The reason for non-completion was mainly due to non-acquisition of land by the Company. Delays were noticed in issuing awards for compensation to the land losers, ranging from 13 to 23 months from the Appointed Date (March 2016). It was further noticed that the compensation of ₹ 180 crore was not paid yet (June 2019) pending release of funds by GoK, causing delay in completion of pending works. In most of the chainages, incomplete stretches exist for every one to two kilometres, thereby the very purpose of the development of project under PPP, *viz*. savings in vehicle operating costs and travel time costs was not achieved. Besides, the road users were subjected to payment of the toll without the corresponding benefit of improved travelling conditions.

Picture No. 5.1.2: Incomplete bypass at Gowribidanur (May 2019).

The Government replied (January 2020) that the land acquisition in respect of Yelahanka-AP border road was hampered due to absence of a full-fledged Special Land Acquisition Officer (SLAO) from December 2014 to June 2016 and the post was vacant from May 2017 to August 2017.

The reply is not acceptable. As per the evidence on record, SLAO was available for the entire period during December 2014 to June 2016 and there was an additional charge even during the period when post was vacant/regular charge was not available. Non-completion of works even as of December 2019 substantiates the fact that non-availability of SLAO was not the reason for delay in land acquisition.

5.1.13.3. The Dharwad-Alnavar-Ramnagar road for a length of 61.75 kms was declared for provisional commercial operation with effect from August 2013. The scope of the project, *inter-alia*, included construction of three Rail-Over-Bridges (ROB) at chainages km.5+530, km.22+850 and km.39+185. However, these works were not completed yet (December 2019).

Audit observed that the Railways proposed for revision in designs for ROBs at the time of execution and consequently there were delays in finalisation of change of scope by the Concessionaire and approval of designs by the Company/Government. The designs submitted (March 2012) by the Concessionaire were revised by the Railways (September 2013) from initial envisaged single span to three spans with increased deck level of the bridge from 6.525 meters to 8.14 meters.

Picture No. 5.1.3: one of the three incomplete ROBs at Chainage km 5+530 (April 2019).

Based on the above revisions proposed by the Railways, the Concessionaire proposed (November 2014) change of scope of work. As the Independent Engineer of the Company objected to the cost worked out by the Concessionaire due to adoption of wrong schedule of rates, the cost was reworked twice (October 2015/June 2016) and resubmitted by the Concessionaire in June 2016. The Company, after scrutiny of the said proposals by the Independent Engineer and further revisions in cost, submitted the change of scope to the Government in August 2016. The Government approved the revision of designs only in March 2018. Thus, the entire process took more than six years from the initial submission of designs by the Concessionaire. As there was abnormal delay in completion of ROBs, the Railways insisted for early completion and hence, the Government, after deliberating the issue of delay, decided (August 2018) to take up the works on cost-sharing basis between Railways and GoK. The works were pending completion (December 2019).

Picture No. 5.1.4: Incomplete approach road to ROB (April 2019).

As a result of delay in completion of works of ROBs, a length of 3.13 kms of approach road to ROBs was not completed and the road users were deprived of the hindrance-free road, despite the toll being collected since August 2013.

The Government replied (January 2020) that the proposals for executing the works on cost sharing basis were in process.

The fact remained that the work has not been completed even after considerable time (seven years) from the COD (August 2013). The Company failed to get the works of ROBs executed by the Concessionaire as per the revised designs communicated by the Railways in July 2012 due to abnormal delay in finalisation of change of scope.

Safety requirements compromised

5.1.14. The IRC guidelines provides road safety audit as a procedure for assessing the accident potential and safety performance. This is an important aspect of quality assurance applied to the implementation of a road project. Safety audit was to be carried out by specialists, who were independent of the design process.

As per the CA (Schedule L) concluded for the six projects[132] implemented under VGF/Annuity, safety requirements apply to all phases of construction, operation and maintenance with emphasis on identification of factors associated with accidents, consideration of the same, and implementation of appropriate remedial measures.

Audit scrutiny of compliance to the safety requirements in these projects revealed that the Company/Concessionaires did not adhere to the terms of the CA. The following table depicts the non-compliance with the requirement of the CA on safety:

Table No.5.1.3: **Non-compliance to the safety requirements**

Sl. No.	**Requirement of Concession Agreement**		**No. of projects not complied**
1	Design Stage	The Company to appoint a Safety Consultant to collect and analyse reasons on fatal accidents and incorporate recommendations of safety audit report in the design of the project.	Three projects (Sl. No. 2, 5 and 6 of ***Appendix-20***).
2	Completion Stage	Appointment of Safety Consultant by the Company to carryout safety audit of completed construction work and to act upon the recommendations.	Two projects (Sl. No. 2 and 5 of ***Appendix-20***).
3	Operation and Maintenance period	The Concessionaire to collect and analyse accidents and furnish monthly report to the Company on measures taken to avert or minimize accidents.	Six projects (Sl. No. 1 to 6 of ***Appendix-20***).
4	Annual safety audit	The Company to appoint a safety consultant every accounting year and to act upon safety audit report recommendations.	Five projects (Sl. No. 1 to 5 of ***Appendix-20***).
5	Safety Management Unit	The Concessionaire to appoint a Highway Safety Management Unit and officer with special knowledge in road safety and road engineering.	Six projects (Sl. No. 1 to 6 of ***Appendix-20***).

[132] Hubballi-Lakshmeshwara, Bellary City-AP border, Wagdhari-Ribbanapalli, Dharwad-Alnavar-Ramnagar, Ginigere-Gangavathi–Sindhanur and Yelahanka - A.P Border.

Sl. No.	Requirement of Concession Agreement		No. of projects not complied
6	Medical aid	The Concessionaire to provide the emergency medical aid with one ambulance along with a chauffeur.	Three projects (Sl. No. 2, 5 and 6 of ***Appendix-20***).
7	Mobile police squad	The Concessionaire to provide mobile police squad round the clock for patrolling of the project high way, construct building for traffic aid posts and hand over them to the Company.	Two projects (Sl. No. 2 and 5 of ***Appendix-20***).

It could be observed that the safety requirements were not followed at every stage of the project implementation. The Company and the Concessionaires failed to perform their obligations with respect to safety requirements. In the absence of any assessment of the accident potential and safety performance, there was no assurance that the safety requirements were not compromised in these roads. Moreover, it was the Company's responsibility to ensure that the costs of unexecuted works were arrived at, with the help of the Independent Engineer and the Concessionaire and to take action to recover such costs, so that the Concessionaire was not unduly benefited. The Company, however, did not act upon the same (December 2019).

The Government replied (January 2020) that the Independent Engineers were appointed for all PPP projects and an exclusive Road Safety Expert is rendering the services through the Independent Engineer. The Road Safety Consultant was appointed during the Operation and Maintenance period for two projects (Wagdhari-Ribbanapalli road and Ginigere-Gangavathi-Sindhanur). The Concessionaires would be directed to establish Highway Safety Management Unit as per the terms of CA.

The reply mentions about the road safety expert working with the Independent Engineers for the limited period, while the requirement as per the CA was that the safety consultant should be available throughout the period of implementation of the project, *i.e.* design, construction, operation and maintenance. The safety audit report was not available for Ginigere-Gangavathi-Sindhanur road.

5.1.14.1. The safety audit was conducted once (December 2018) during operation and maintenance period in respect of Wagdhari-Ribbanapalli road, which made certain important recommendations for rectification, *viz.* strengthening of shoulders on either side of the road, improving the capacity of identified junctions and footpaths, signages, road safety devices and road markings, and improvement to existing truck lay bay by constructing the median to bifurcate with the main carriageway.

Audit, however, observed that there was nothing on record in support of implementation of the above recommendations. Thus, the Company/Concessionaire failed to ensure compliance to the safety audit recommendations, thereby compromising the road safety to the users.

The Government replied (January 2020) that suitable action will be taken to ensure compliance to the safety audit requirements/recommendations.

Undue advantage to Concessionaires

5.1.15. The Company extended undue benefit to the Concessionaires, by not finalising the change of scope of projects, not revising the project costs and not collecting the cost incurred on the Independent Engineers as discussed in ***Paragraphs 5.1.15.1*** to ***5.1.15.3***.

Non-finalisation of descoping orders and non-remission of amount to safety fund

5.1.15.1. As per the terms of the CA (Article 16), if the Concessionaire fails to complete any construction work on account of force majeure or for reasons solely attributable to the Company, the Concessionaire was required to pay 80 *per cent* of the sum saved therefrom to the safety fund maintained by the Company within a period of 180 days of the project completion date.

Audit observed that in two projects, *viz*. Bellary City-AP border road and Dharwad-Alnavar-Ramnagar road, the Company removed certain works from the scope of these projects. However, no action was taken to finalise the cost of de-scoped works in respect of Bellary City-AP border road[133], while no orders were issued on change of scope in spite of finalising the cost of reduction in scope for Dharwad-Alnavar-Ramnagar road, thereby giving advantage to the Concessionaires. The Concessionaire of Dharwad-Alnavar-Ramnagar road was required to remit ₹ 32 crore to the safety fund. In another project (Yelahanka-AP border road) though there was a reduction in length of Right of Way (ROW)[134] than that envisaged in the CA and the norms of IRC, the Company did not take action to de-scope the works.

Similarly, the Company did not finalise the change of scope in respect of World Bank Co-financed projects, though there were additions and deletions in the scope of five projects (reduction[135] in WCP-1 and WCP-5 and additions[136] WCP-2, 3, and 6).

The Government replied (January 2020) that change of scope is not finalised for Bellary City-AP border road due to non-receipt of information from the Concessionaire. With regard to Dharwad-Alnavar-Ramnagar road and World Bank Co-financed projects, it was stated that the action will be taken to finalise

[133] Construction of Electronic Calling Boxes (January 2013), Road work from chainage. 1+500 to chainage.1+ 900 and reduction in width from 23 metres to 21 metres from chainage. 1+900 to chainage.2+ 460, Solid Noise Barrier to be erected at places nearer schools at Yerragudi village, Lake Enhancement works and box culverts, non-construction of traffic aid posts and medical aid posts and building of two residential quarters, *etc.*

[134] ROW in the Stretch-I and Stretch II ranged from 23.50 metres to 26.50 metres and 12 metres to 23.50 metres respectively against the envisaged ROW of 30 metres.

[135] **WCP-1**: Reduction in width of carriageway for approaches of major bridge on Malaprabha river and addition of Belawadi junction improvement; **WCP-5**: Reduction of scope of works, *viz.* providing additional length of drain, junction improvement, deletion of paved shoulders and overlay.

[136] **WCP-2**: Additional works for construction of four lane between chainage 57+550 to 59+150 in Kamthana village in link 4A; **WCP-3**: Construction of additional RCC Box type drains in built up section in link A, B, and C, construction of four lane divided carriage way in built up sections in four villages; **WCP-6**: Additional works for widening of pavement in built-up locations in chainage 22+000 to 23+700 and (ii) providing additional drains of 3010 m length as per the site conditions.

the change of scope as per the terms of CA. It was also replied that the required land for the balance width of Yelahanka-AP border road was being acquired.

The reply indicated that the Concessionaires were allowed to evade the payment to the safety fund, especially in respect of Bellary City -AP border road for which delay was six years from the COD. The reply is silent with regard to the reasons for non-remittance of amount to safety fund by the Concessionaire in respect of Dharwad-Alnavar-Ramnagar road, where the cost was already worked out by the Company.

Failure to revise scope of project leading to undue benefit to Concessionaire

5.1.15.2. The scope of work for development of Yelahanka-AP border road included construction of two Rail Over-Bridges (ROB) at chainage km.32.500 (between Rajankunte and Doddaballapur stations) and chainage km. 80.200. Subsequently, the Company de-scoped (November 2016) the work of one ROB at chainage km.32.500 estimated at ₹ 26.66 crore, as the GoK approved (June 2015) the execution of the work on cost sharing basis by the PWP&IWTD with South-Western Railways.

Audit observed that the Railways informed the Company in January 2014 about the sanction by its Board for construction of ROB at chainage km. 32.500, *i.e.* prior to inviting the bids (February 2014) and concluding the CA (June 2015). However, the Company, without taking cognizance of the communication from Railways, included the said ROB in the scope of the project. As a result, the Concessionaire unduly benefitted by ₹ 5.33 crore, being 20 *per cent* of the cost of the de-scoped work, as the Concessionaire was required to remit to the safety fund, only 80 *per cent* of the cost. Eventually, the Company had to descope this work subsequently as it was decided to construct on cost sharing basis by the railways and PWP&IWTD, resulting in benefit to the Concessionaire.

The Government replied (January 2020) that the tenders were invited based on the in-principle approval given by the DEA, GoI in April 2013, which included construction of two ROBs. Any modification in the total project cost would require revised approval of GoI which would consume too much time affecting the project implementation.

The reply is not acceptable, as the Company did not take cognizance of intimation (January 2014) from the Railways before inviting the bids. Further, the Company could have communicated the revision in project cost even at the time of final approval (May 2017) by GoI as that was only a formality. Therefore, the Company's decision to finalise the contract without reducing the scope was not justified.

Non-collection of Independent Engineer's remuneration and interest on delayed payments

5.1.15.3. The CA stipulated that the remuneration, cost and expenses of the Independent Engineer should be paid by the Company and 50 *per cent* of such expenditure was to be reimbursed by the Concessionaire to the Company within 15 days of receiving a statement of expenditure and any delay attracted interest at the rate of 5 *per cent* above the Bank Rate. Audit observed that the Company received only ₹ 9.33 crore[137] from the Concessionaires against the demand (June 2012 to April 2019) of ₹ 24.31 crore[138] receivable in respect of nine projects. The Company did not levy interest on belated payments by the Concessionaires.

The Government replied (January 2020) that the dues of ₹ 13.58 crore accumulated upto December 2018 for World Bank funded projects were recovered. While the recovery in respect of World Bank funded projects was made after audit observation was issued, the reply is silent on delay and non-recovery of ₹ 2.92 crore receivable for Dharwad-Alnavar-Ramnagar and Wagdhari-Ribbanapalli roads and non-recovery of interest for the delay.

Avoidable expenditure

5.1.16. The Company incurred avoidable expenditure of ₹ 17.39 crore on two projects, by including unwarranted works in the scope of the projects as discussed in ***Paragraphs 5.1.16.1*** and ***5.1.16.2***:

Faulty inclusion of a NH stretch in project in violation of MORTH's conditions

5.1.16.1. In respect of Yelahanka–AP border road, the MoRTH gave in-principle approval (April 2013) to the project with a condition that GoK shall not include National Highway (NH) stretch of 1.20 kms at chainage km.38.232 to km.39.400 and no improvement works should be taken up in future without the consent of the MoRTH. This condition was reiterated by MoRTH even while giving final approval of the project in May 2017.

Audit, however, observed that the Company took (June 2017) possession of the said NH stretch from NHAI for its development under change of scope. The scope of the work included shifting of utilities and improvement of existing carriage way at an estimated cost of ₹ 10.10 crore. The decision of the Company was not only in violation of condition for approval of the project by MoRTH, but also resulted in unwarranted expenditure of ₹ 10.10 crore, as the NHAI handed over the road to the Company with a condition that the development has to be done through Company's own funds.

The Government replied (January 2020) that the stretch has been developed with uniform road way width to avoid traffic congestion and achieve smooth flow of traffic. The fact remained that the stretch of 1.20 kms was part of NH and had to be executed by NHAI. Moreover, the Company had undertaken only shifting of utilities and developmental work in the existing four-lane road.

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[137] Dharwad-Alnavar-Ramnagar and Wagdhari-Ribbanapalli - ₹ 4.04 crore; WCP-1 and 7 - ₹ 5.29 crore.

[138] Dharwad-Alnavar-Ramnagar and Wagdhari-Ribbanapalli - ₹ 6.96 crore; WCP-1 and 7 - ₹ 5.96 crore and WCP-2, 3, 5 and 6 - ₹11.39 crore.

Undertaking a project which was already planned to be created by MoRTH/ NHAI

5.1.16.2. The Company took up conversion of two lane road into six-lane for a distance of two kilometres within the town limits of Sindhanur (km 79.000 to km 80.750), with the approval (November 2015) of Externally Aided Projects wing of PWP&IWTD and signed (March 2016) the supplementary agreement with the Concessionaire of Ginigere-Gangavathi-Sindhanur road project. The work was completed in October 2017 at a cost of ₹ 7.29 crore.

Audit observed that the above stretch of two kilometres within town limits of Sindhanur was included in NH-150A (Jewargi-Chamarajanagar section in Sindhanur City) *vide* gazette notification of MoRTH dated 4 March 2014 for developing into six-lane. This work was in the pipeline (August 2015) for execution by NH wing of PWP&IWTD and the expenditure for the work was to be borne by GoI. In spite of these facts, the PWP&IWTD approved and the Company signed the supplementary agreement for execution of the work at its own expense, resulting in avoidable expenditure of ₹ 7.29 crore.

The Government replied (January 2020) that two kilometres within the town limits of Sindhanur was developed based on the request of the elected member of the constituency to provide free flow of traffic to the residents/commuters of the town. The Company, however, failed to consider the fact that the road would have otherwise been developed at the expense of MoRTH/NHAI and incurred unwarranted expenses.

Foregone benefit of IBRD assistance

5.1.17. In respect of World Bank Co-financed Projects, 40 *per cent* of the construction cost was to be paid to the Concessionaire as lump sum grant in four equal instalments, *i.e.* on completion of 25 *per cent*, 50 *per cent*, 75 *per cent* and 100 *per cent* of the work. Out of 40 *per cent* of the cost, 20 *per cent* was to be met from IBRD loan to be released through KSHIP wing of PWP&IWTD and the remaining 20 *per cent* was to be met out of the loan availed (April 2017) from Vijaya Bank by the Company. The currency of IBRD loan and Vijaya Bank loan expired in December 2018 and April 2020 respectively.

Audit observed, in respect of one project (WCP-5) against which lump sum grant of ₹ 70.38 crore was to be paid to the Concessionaire, that the first and second instalment amounting to ₹ 35.19 crore was paid (June 2017/September 2017) out of Vijaya Bank loan and third and fourth instalments amounting to ₹ 25.76 crore were paid (December 2017/May 2018) out of IBRD loan. The balance amount of ₹ 9.43 crore towards the fourth instalment was not released pending completion of certain works. The Company could not draw the balance amount of ₹ 9.43 crore from IBRD loan as its currency expired in December 2018.

Though the Company was aware of the fact that the currency of IBRD loan expires (December 2018) prior to that of Vijaya Bank (April 2020), the first and second instalments were released out of Vijaya Bank loan, instead of IBRD loan. This caused additional financial burden to the State Government as the loan from IBRD was cheaper in terms of rate of interest by 6 *per cent*[139] (aprox). The annual additional interest burden on ₹ 9.43 crore would be ₹ 56.58 lakh.

The Government replied (January 2020) that the lump sum grants out of IBRD loan to be released through KSHIP were delayed due to paucity of funds during June to August 2017. Any delay in making lump sum payment would attract interest as per the terms of CA and hence payment was released out of Vijaya Bank loan.

The reply is not acceptable, as it was observed that the Company did not submit bills to KSHIP for releasing payments towards first and second instalments. Secondly, the Company's claim of paucity of funds was not supported by any evidence for having communicated by KSHIP to that effect.

Violation of norms of MoRTH/ MoEF&CC to use fly ash for construction

5.1.18. The MoRTH issued (November 2001) directions for use of fly ash in construction of road/flyover embankment, especially in the areas where fly ash is available in plenty. The MoEF & CC also directed (November 2009) that no agency, person or organisation shall, within a radius of 100 kms (revised to 300 kms in January 2016) of a thermal power plant, undertake construction or approve design for construction of roads or flyover embankments with top soil.

Audit observed that the use of fly ash was not considered in three projects, *viz*. Bellary City-AP border, Ginigere-Gangavathi-Sindhanur, and Bidar to Chincholi road (WCP-2), though they fell within the limits of specified distance[140] from the thermal power stations, thereby defying the directives of MoRTH/MoEF for promoting the utilisation of fly ash. In case of Ginigere-Gangavathi-Sindhanur road, provision was made to use fly ash for embankment of 2.95 lakh cubic meter, but it was not considered at the time of execution.

The Government replied (January 2020) that fly ash was not used for Ginigere-Gangavathi-Sindhanur road as the quantity for embankment was very less and also it was not feasible due to location of thermal power stations beyond 100 kms. In respect of World Bank Projects, it was stated that the usage of fly ash was not envisaged as none of the projects were located within 100 kms at the time of finalisation of tenders (January 2015).

The reply is not acceptable. As verified by audit, the requisite fly ash was available at BTPS[141]. Moreover, the distance from Bellary Thermal Power Station (BTPS) to the project road, *i.e.* Ginigere-Gangavathi-Sindhanur ranged between 47 kms and 90 kms. Further, Bidar to Chincholi road, for which CA was concluded in October 2016, was well within 300 kms and it was mandatory

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[139] Interest rate of Vijaya Bank at the time of entering into loan agreement was 8.65 *per cent* to be reset annually, while that of IBRD was 2.54 *per cent*.

[140] Bellary City-AP border road to Bellary Thermal Power Station (BTPS): 25 to 45 kms; Ginigere- Gangavathi-Sindhanur road to BTPS: 47 to 90 kms; WCP-2: 165 to 225 kms from Raichur Thermal Power Station.

[141] There was 14.51 lakh MTs of unlifted fly ash at Unit-1 of BTPS, which was pumped into ash pond. (Source: Audit Report of CAG on Public Sector Undertakings, GoK for the year ended March 2014).

to use fly ash with effect from January 2016. The reply is silent on non-usage of fly ash for Bellary City-AP border road.

To summarise the observations under 'Execution' of projects, audit concludes that the system was deficient to the extent that it did not ensure:

- **timely completion of land acquisition process in seven projects;**
- **timely approvals for change in designs in one project;**
- **enforcement of conditions of the Concession Agreements with regard to safety requirements and descoping the works in six projects;**
- **compliance to the conditions for sanction of projects (one project) and the norms of MoEF&CC (three projects).**

Levy and collection of toll

5.1.19. Audit findings on determination of toll rates, commencement of toll collection, compliance to the terms of CA on annual traffic sampling and computerisation of toll plazas are discussed in ***Paragraphs 5.1.19.1*** to ***5.1.19.3***.

Extra burden on the road users

5.1.19.1. As per Karnataka Private Investment Project (Road toll or User fee determination of Rates and Collection) Notification, 2009, the base toll rates of 2009-10 as given in the notification were to be increased every year from 1st April on the basis of Whole Sale Price Index[142] (WPI). As per the said notification, the toll rates for Wagdhari-Ribbanapalli Road and Dharwad-Alnavar -Ramnagar road were required to be determined accordingly.

The CA concluded with the Concessionaires of the above two Projects states that the Fee Rules/Notification issued by the State Government shall constitute Schedule – R of the Agreement. However, for assistance in drafting the Fee Rules, a model notification was annexed to the CA.

Audit observed that the toll rates were determined as per the model notification annexed to the CA, instead of approved GoK toll notification, 2009. It was observed that the base rates in the model notification were higher than that in the GoK toll notification, 2009. Further, the model notification allowed for annual increase considering Wholesale Price Index (WPI) and an increase of additional three per cent, whereas the GoK toll notification 2009 allowed only for annual increase on account of WPI.

The toll rates leviable as per the GoK toll notification, 2009 and actual levied as per the model notification in respect of Wagdhari-Ribbanapalli road are indicated in the following table:

[142] For arriving at toll rate for 2010-11: Base toll rate of 2009-10 x WPI of December 2009/WPI of December 2008.

Table No.5.1.4: Levy of user charges

Sl. No.	Type of vehicles	Base Rate 2009-10 (₹ /km)		User charges as on 1 April 2012 (₹ /km)	
		To be considered as per GoK toll notification, 2009	Actual Considered	To be levied as per GoK toll notification, 2009	Actual levied
1	Car/Van/Jeep	0.50	0.58[143]	0.632[144]	0.732
2	Mini bus, LCV	0.75	0.87	0.948	1.097
3	Bus/Truck	1.50	1.75	1.895	2.208
4	MAV	2.25	2.62	2.843	3.305

It could be seen from the above that the base rates considered for the purpose of calculating toll were higher than that of GoK toll notification, 2009 resulting in levy and collection of excess toll charges of ₹ 5 to ₹ 65 per vehicle by the Concessionaire in the first stretch (60.61 kms) and ₹ 5 to ₹ 80 in the second stretch (76.067 kms) with effect from the date of commencement of toll, *i.e.* September 2012. Similar method was also followed for calculating the toll rates for Dharwad-Alnavar –Ramnagar road and excess collection of toll ranged from ₹ 15 to ₹ 85 per vehicle.

The toll collection for Wagdhari-Ribbanapalli road, and Dharwad-Alnavar - Ramnagar road commenced with effect from September 2012 and December 2013 respectively. Audit quantified the excess user fee collected from the road users for the period April 2018 to December 2018 (based on available data) in respect of Wagdhari-Ribbanapalli road and for April 2018 to March 2019 in respect of Dharwad-Alnavar -Ramnagar road, which worked out to ₹ 6.24 crore and ₹ 1.24 crore respectively.

Thus, fixation of toll in violation of the Toll Notification, 2009 resulted in recurring avoidable burden on the users and extension of undue benefit to the Concessionaires.

The Government replied (January 2020) that the financial model was prepared based on the toll structure indicated in the model CA published by the Planning Commission. The same was communicated to the DEA, GoI and got approved. The proposal of calculation of the toll charges has also been approved by the State Government.

The reply is not acceptable. As per the approved terms of the CAs, the Fee Rules/Notification issued by the State Government should have been the basis for calculating the toll (Clause 27.1.1 and Schedule of R of the CA). Moreover, the toll notification, 2009 issued by the GoK clearly stipulated that the toll rates for Wagdhari -Ribbanapalli Road and Dharwad-Alnavar-Ramnagar road were to be fixed based on the rates mentioned in the notification.

5.1.19.2. As per the GoK toll notification, 2009, levy of user fee is applicable only for the two-lane roads with a width of 7.0 metre carriage way and above.

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[143] As per notification dated 5 September 2012 issued by PWP&IWTD.

[144] Toll rate for 2012-13 = 0.586 (base rate of 2011-12) x WPI of December 2011 (157.3) / WPI of December 2010 (146) = ₹ 0.632.

Audit observed that the total length of the Dharwad-Alnavar-Ramnagar road was 61.75 kms, which included the length of 23.20 kms passing through reserve forest area having carriage width of 5.5 metres. As the forest department did not permit construction of road carriage width of seven metres in the stretch of 23.20 kms, the carriage way was restricted to 5.5 metres.

However, the Concessionaire was allowed to levy and collect the toll from the users for the entire stretch of 61.75 kms instead of restricting it to 38.55 kms (excluding 23.20 kms). This was in violation of toll notification issued by the GoK. On the other hand, the Company did not take action to de-scope the work of reduction (estimated at ₹ 10.49 crore) in width from 7 metres to 5.5 metres for this stretch of 23.20 kms (refer ***Paragraph 5.1.15.1***).

The excess collection of toll for 23.20 kms, which had carriage width of 5.5 metres, worked out to ₹ 1.41 crore[145] during April 2018 to March 2019[146]. This excess toll collected year after year upto December 2040 was an unwarranted burden on users and benefit to the Concessionaire.

The Government replied (January 2020) that there were no specific directions for reduction in user fee for the road with lesser width of carriage way and has not resulted in excess collection of toll.

The reply is not acceptable, as per the Toll notification, 2009, levy of user fee was applicable only for the roads with two or more lanes with a width of 7.0 metre carriage way and above and therefore, collection of user fee for a length of 23.20 kms of road, which was built with lesser carriage width of 5.5 meters, was not in order.

Non-realisation of toll revenue

5.1.19.3. As per the guidelines of the Planning Commission, the Company was required to commence collection of toll within 45 days from the date of issue of PCOD or issue of notification, whichever was later. In six World Bank Co-financed projects, for which the toll rights vest with the Company, it was imperative to ensure that the toll collection commence immediately after PCOD to avoid any eventual loss of revenue. The GoK approved tolling of these roads in March 2016.

Audit noticed that the Company delayed the commencement of toll collection in five of these six projects for which PCOD was issued in February 2018/October 2018. The Letters of Acceptance (LoA) for collection of user fee were issued to the agencies between February 2019 and July 2019, but the collection of toll commenced between September 2019 and January 2020, delay being five to eleven months. There were no reasons on record for the delay in commencing the collection of user fee even after issue of LoA.

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[145] The excess toll has been worked out for 23.20 kms which has carriage width of 5.5. meters, by multiplying actual number of vehicles with toll rate per vehicle (varied from ₹ 15 to ₹ 95 depending on type of vehicle – car, lorry, bus, *etc*).

[146] The vehicles' data was not available for the period 2013-14 to 2017-18 and hence the excess collection of user fee could not be calculated in audit.

Considering the actual annual toll revenue of ₹ 13.04 crore as per the LoA, the loss of potential revenue for five projects works out to ₹ 35.86 crore[147]. Resultantly, the burden on the State budget would increase by this extent as the Company had to seek budgetary support for repaying the loan availed from Vijaya Bank.

The Government replied (January 2020) that toll collection could not be commenced immediately after issue of PCOD since works in several sections were pending. In spite of many impediments, such as local aggression and court cases the Company was able to commence toll operations in five projects and the toll collection for the remaining one would start in March 2020.

The reply is not acceptable:

i. As per the terms of CA, PCOD was issued after ensuring that the road can be safely and reliably placed in commercial operation though certain works were not complete and hence the contention that toll collection could not be commenced due to pending works was not justified;

ii. The reply that court cases impeded the commencement of toll collection was not supported by evidence;

iii. Reply does not explain delay in commencing the toll collection after issue of LoA. Private players were able to collect toll in respect of VGF projects, whereas the Company had failed to collect toll even after issue of LoA to contractors;

iv. Moreover, toll for the remaining one project (WCP-2: Bidar-Chincholi) has not been commenced yet (September 2020).

Non-conducting of traffic sampling

5.1.20. As per terms of the CA of Wagdhari-Ribbanapalli, Dharwad-Alnavar-Ramnagar and Ginigere-Gangavathi-Sindhanur road projects, the Company had to inspect the relevant records of the Concessionaire and conduct traffic sampling for determining the actual traffic on the Project Highway. If the traffic sampling demonstrated that the actual traffic was more than the traffic reported by the Concessionaire, the traffic determined by the traffic sampling was deemed to be the traffic for the purposes of the Agreement. Further, in the event of actual average traffic fallen short of or exceeded the Targeted Traffic by more than two and half per cent, the Concession Period was to be adjusted accordingly.

Further, the conditions of CAs stipulated that the Concessionaires should install, operate and maintain a computer system with round-the-clock connections to

[147] **WCP-1,6,7**: LoA/Date of commencement- July 2019/December 2019: Loss - ₹ 13.04 crore × 5/12 months × 3 projects = ₹ 16.30 crore; **WCP-3:** LoA/Date of commencement - February 2019/January 2020: Loss - ₹13.04 crore x 11/12 months × 1 project = ₹ 11.95 crore; **WCP-5:** LoA/Date of commencement - February 2019/September 2019: Loss - ₹ 13.04 crore × 7/12 months × 1 project = ₹ 7.61 crore.

the networks of the Company for exchange of data and information necessary for efficient and transparent regulation and management of traffic.

Audit observed that the Company had neither conducted annual traffic sampling nor the toll collection systems at the toll plazas were connected with the network of the Company. Thereby there were no means to ensure that the Concessionaire was not given undue advantage, if any, in terms of increased revenue due to more traffic than that projected.

The Government while assuring that the traffic survey and sampling will be carried out in accordance with the provisions of the CA stated (January 2020) that the traffic was reviewed based on the monthly progress reports submitted by the Concessionaires as the Concessionaires have reported that the actual toll revenue was not as per the projections. It was further stated that the Company was in the process of hosting a website and project monitoring system for all the projects, and connection to network of the Company will be established.

The reply is not acceptable, as the Company relied on the reports of the Concessionaire without conducting actual sample survey as required by the CA.

To summarise the findings under 'Levy and collection of toll', audit concludes that there were lacunae in the system as the Company failed to ensure adherence to the terms of the CA and the notified orders of the Government on toll fixation in two projects. It also failed to ensure timely commencement of toll collection (five projects) and complying with the terms of the CA with regard to monitoring and assessment of traffic (three projects) through sampling.

Operation and maintenance and Post-implementation monitoring

5.1.21. The CA concluded by the Company for Annuity/ VGF projects stipulated that the Concessionaire should carry out periodic preventive maintenance to ensure safe, smooth and uninterrupted flow of traffic on the Project Highway during the concession period. The Concessionaire was also required to evolve a maintenance manual for the regular and preventive maintenance of the Project Highway in conformity with the Specifications and Standards and provide annual programme of maintenance to comply with the maintenance requirements.

Audit, however, observed that the Concessionaires did not adhere to the conditions of the CA relating to operation and maintenance of roads as detailed in ***Appendix No.21***. The important findings are mentioned below:

i. O&M manuals and Annual Maintenance Programme for Bellary City-AP border and Ginigere- Gangavathi-Sindhanur roads were submitted with delay of three to five years from the COD, while they were not submitted in respect of Dharwad-Alnavar-Ramnagar since 2014-15. Thereby, there was no effective monitoring mechanism to oversee the maintenance activity undertaken by the Concessionaires;

ii. In respect of Hubballi-Lakshmeshwara road, Benkelman Beam Deflection (BBD) test[148] was conducted in June 2015 and August 2018, after a gap of three years two months, against the requirement of the annual test. Further, overlaying of road was done only for 25 kms against the requirement for 42.96 kms;

iii. In respect of Dharwad-Alnavar-Ramnagar road, the Concessionaire did not take action for overlaying the road with bituminous concrete after completion of five years from COD (due in August 2018). The condition of the road found to be deteriorated, as the design life of the upper bituminous was only for five years. The Independent Engineer/ Geotechnical expert also pointed out to the inconvenience caused to users due to non-rectification of damages to the road;

Picture No. 5.1.5: Poorly maintained Dharwad-Alnavar-Ramnagar road (May 2019).

iv. The renewal of wearing surface[149] of Bellary City-AP border road pavement was done in December 2018 against the due date of March 2017, *i.e.* after 22 months of the due date;

v. No action has been taken for renewal of wearing course for Wagdhari-Ribbanapalli road even beyond the due date (January 2018) and to conduct Roughness Index and BBD test at the specified intervals (annual);

Picture No. 5.1.6: Poorly maintained Wagdhari-Ribbanapalli road (April 2019).

vi. In respect of Ginigere-Gangavathi-Sindhanur road, condition stipulating regular periodic maintenance during fifth and tenth year was not included in the agreements, which was a deviation from the CAs concluded in other projects.

Audit further observed that the terms of CA (Clause 17.8 and 17.9) empowers the Company, in case the Concessionaire fail to maintain/repair the road in

[148] BBD test is conducted for evaluation of structural capacity of existing flexible pavements and also for estimation and design for strengthening of any weak pavement in highways.

[149] The wearing surface, also called wearing course is the top layer of a road designed to resist abrasion from traffic.

conformity with the maintenance requirements, to undertake maintenance work at the risk and cost of the Concessionaire. In addition, a sum equivalent to 20 *per cent* of such cost was required to be paid by the Concessionaire to the Government/Company as damages. However, the Company failed to initiate any action.

It was also observed that M/s.GVR Infra Projects Ltd, Chennai, who is the Concessionaire for three projects[150], had become insolvent. As the concession period of the two projects (Wagdhari-Ribbanapalli Road and Dharwad-Alnavar-Ramnagar) was valid upto December 2040, there would be an additional financial burden to the GoK/ Company on operation and maintenance.

Thus**,** the Company had no system in place either to ensure that the Concessionaires had complied with the conditions of the CAs with regard to periodic maintenance of roads or to invoke contractual provisions and recover such costs from the Concessionaires in five projects. Failure to maintain the roads as per maintenance requirement had not only caused inconvenience to the road users, but also deprived them of better value for money and enhanced quality of services expected to be provided under PPP. This had also resulted in undue benefit to the Concessionaires as the Company failed to invoke terms of the Concession Agreement.

The Government in its reply (January 2020) agreed to direct the Concessionaires to submit O&M manual and to take steps to ensure compliance with CA with regard to annual plan for maintenance.

Monitoring

5.1.22. The Guidelines of the Planning Commission (August 2012) *inter-alia* suggested a two tier mechanism for monitoring PPP projects, *viz*. Projects Monitoring Unit (PMU) at the project authority (Company) level and Performance Review Unit (PRU) at the Ministry level or State Government Level as depicted in the Chart below:

Chart No. 5.1.2: Monitoring mechanism of PPP projects

Performance Review Unit (PRU)
at State Government Level

- PRU review the monthly reports submitted by PMU and oversee or initiate action for rectifying any defaults or lapses.

Projects Monitoring Unit (PMU)
at Company Level

- PMU submit monthly report to PRU regarding compliance to the conditions of agreements, achivement of financial closure, adherence to the timelines, action plans for defaults, *etc*.

[150] Hubballi-Lakshmeshwara Road, Wagdhari-Ribbanapalli Road and Dharwad-Alnavar–Ramnagar Road.

The guidelines stipulated reporting by the PMU regarding compliance to the conditions precedent[151] and achievement of financial closure, adherence to the time lines and other obligations, remedial measures and action plan for curing defaults, levy and collection of user charges, *etc*. The PRU was to review the report submitted by PMU and oversee or initiate action for rectifying any defaults or lapses.

Audit observed that the PRU under the Chairmanship of the Additional Chief Secretary, IDD, GoK and PMU headed by a Superintending Engineer of the Company was constituted only in February 2016 and March 2016 respectively, *i.e.* after concluding the CAs (December 2015) for World Bank Co-financed projects, thereby there was no monitoring mechanism during pre-project implementation for ensuring timely acquisition of land, achievement of financial closure/Appointed Date, *etc*. Further, the PMU has not submitted any monthly reports to PRU on project implementation.

Further, the Report of the Expenditure Reforms Commission, GoK recommended (May 2011) appointment of an independent regulator (State Road Regulatory Authority) on the model of the regulator in the energy sector to lay down the norms regarding quality of roads, terms and conditions of getting roads constructed through PPP mode and tolling policy for roads. The GoK, however, did not appoint the State Road Regulatory Authority (December 2019).

The impact of the absence of reporting mechanism to the PRU at the State level and non-creation of independent Road Regulatory Authority was very much evident from the fact of delay in concluding CAs, non-completion of certain pending works due to land acquisition issues, non-finalisation of de-scoping of works, fixation of higher user fee, delay in collection of user fee, non-compliance to the norms for road safety and operation and maintenance, *etc*.

The Government during the exit conference (December 2020) stated that the PPP projects had commenced their operations recently and action will be taken at appropriate time to create the regulatory body for roads. It was also replied (January 2020) that submission of reports to the PRU would be ensured in future.

Outcome analysis

5.1.23. While it is appreciable that the Company was successful in completing the roads of 788.74 kms and improving their motorable condition to a greater extent, there were drawbacks in implementation as well.

[151] Conditions precedent refers to the conditions to be fulfilled by both the Company (handing over of required land) and the Concessionaire (financial closure).

Picture No. 5.1.7: Ginigere-Gangavathi-Sindhanur road – before and after development.

1. The envisaged benefits from the projects (360.91 kms) implemented under World Bank Co-financing were deferred by 15 months in five projects and 26 months in one project due to delay in procurement process mainly due to delay in initiation of land acquisition process.

2. The actual toll revenue for World Bank Co-financed projects reduced by 77 *per cent* of the initial projections and also the Company failed to ensure timely commencement of collection of user fee. Resultantly, the Company depended on the State Budget for servicing the loan availed for the projects.

3. General public, despite payment of toll, could not reap the benefits of smooth commute and other related savings such as vehicle operating cost, travel time, *etc*, due to multiple incomplete intermittent stretches as in the Yelahanka-AP border road (***Paragraph 5.1.13.2***) and absence of operation and maintenance as in the Hubballi-Lakshmeshwara Road, Bellary City-AP border road, Wagdhari-Ribbanapalli road and Dharwad-Alnavar-Ramnagar road (***Paragraph 5.1.21***) defeating the purpose of taking up projects through PPP mode of execution.

4. Further, one project (Bellary City-AP border road) was developed under BOT (Annuity) despite the road not being part of the prioritised roads of the State Government. The users were burdened with higher user fee in two roads (Wagdhari-Ribbanapalli road and Dharwad-Alnavar-Ramnagar road) due to violation of toll notification issued by the State Government. Further, there was no assurance that the safety requirements have not been compromised in construction of roads in the absence of safety audits being conducted. Thus, the expected outcome of better value for money to the users through enhanced quality of services and better managerial practices were not achieved fully in real terms.

Conclusion

1. Five World Bank Co-financed projects were approved under hybrid annuity mode overlooking the norms fixed by the GoI and bench marks adopted while approving KSHIP projects. There was an additional financial burden of ₹ 80.16 crore due to award of two of these projects

with negative VfM. There were delays in declaring Appointed Date by 15 to 26 months with reference to the procurement plan drawn by the Company due to delay in initiation of land acquisition proposals. The Company had foregone the revenue of ₹ 35.86 crore due to delay in commencing the collection of toll;

2. Bellary City-AP border road was developed into four-lane under annuity ignoring the traffic survey projections resulting in additional financial burden of ₹ 29.53 crore. The Company incurred an avoidable expenditure of ₹ 22.81 crore due to award of works at higher VGF in one project and ₹ 17.39 crore due to unjustified inclusion of certain works in deviation from norms/approvals in two projects;

3. The Concessionaires were given undue advantage by not finalising the change of scope and allowing them to evade remittance of 80 *per cent* of the cost of reduced scope of works to the safety fund. The Concessionaire did not remit ₹ 32 crore to the safety fund in one VGF project pending issue of orders;

4. The road users were burdened with higher user fee in two VGF projects due to fixation of toll in violation of toll notification issued by the Government. Such additional recurring burden on the users of these two roads for one year was worked out to ₹ 8.89 crore;

5. The Company and the Concessionaires failed to perform their obligations with respect to safety requirements for the roads executed under VGF/Annuity. The Concessionaires did not carry out the operation and maintenance of the roads violating the terms of the Concession Agreements and the Company also failed to act upon firmly on the defaulting Concessionaires;

6. The monitoring mechanism at State level was absent. The State Road Regulatory Authority as recommended (May 2011) by the Expenditure Reforms Commission was not set up.

Thereby, the expected higher efficiency in operations, enhanced quality of services and better value for money were not achieved.

Recommendations

1. **The Company may ensure strict adherence to norms of GoI and implement them in line with the project approvals without any deviations while assessing the viability of the projects under PPP;**

2. **The pre-project requirements, especially the land acquisition process should be given priority and completed beforehand in coordination with the departments concerned to avoid eventual delays in project completion;**

3. **The Company may ensure adherence to the terms of Concession Agreements on project implementation, including safety**

requirements and operation and maintenance to ensure all-weather, all time availability of good quality and safe roads;

4. **The toll should be fixed in line with the toll notification issued by the GoK and the Company should ensure timely commencement of collection of toll. State level monitoring should be ensured at all stages of project implementation;**
5. **GoK may establish the State Road Regulatory Authority as recommended by the Expenditure Reforms Commission for better monitoring of projects implemented under PPP.**