

# **CHAPTER - II**

## **PERFORMANCE AUDIT**

### ***2.1 Construction of Roads and Bridges under Public Private Partnership***

## Chapter II

### Public Works Department

#### 2.1 Construction of Roads and Bridges under Public Private Partnership

##### Highlights

Public Private Partnership has emerged as an instrument of public finance for development of infrastructure for welfare of the community without compromising profit motive. A performance audit of the construction of roads and bridges under Public Private Partnership was conducted and some of the key findings are given below:

**There was no short/medium term plan based on the Road Development Plan specifying the projects to be taken up, the executing agency and the mode of execution of project. There were delays in implementation of five projects due to delays in finalisation of the executing agency, financial closure and non-acquisition of private and forest land.**

*(Paragraphs 2.1.6, 2.1.7.1, 2.1.9.2, 2.1.11.2, 2.1.12.3 and 2.1.13.2)*

**Tender forms were not issued to prospective bidders in two projects. Wide publicity was not given in international newspapers for all the four-lane test-checked projects and adequate time was also not given for the submission of tenders. The minimum net-worth and experience criteria was relaxed at the time of tendering. There were instances of anomalies in the formation of a Special Purpose Vehicle and Joint Venture in two projects.**

*(Paragraphs 2.1.7.3, 2.1.8.1, 2.1.11.1, 2.1.15.2 and 2.1.16.1)*

**The scope of work was revised during tendering leading to revision in project costs and concession periods. Further, non-evaluation of the components of project cost quoted by the bidder led to grant of increased concession period.**

*(Paragraphs 2.1.7.2, 2.1.11.1 and 2.1.15.1)*

**Quality control measures as well as monitoring of the projects were inadequate while there were shortfalls ranging from 34 per cent to 100 per cent in conducting the mandatory tests from Government laboratories.**

*(Paragraphs 2.1.7.5, 2.1.8.3, 2.1.9.4, 2.1.11.3, 2.1.12.4 and 2.1.14.4)*

**Provisional completion certificates in three projects were issued without ensuring achievement of milestones prescribed. There were delays in issue of final completion certificates ranging between four and 90 months due to non-completion of punch list items within the stipulated period.**

*(Paragraphs 2.1.8.4, 2.1.12.3, 2.1.14.3 and 2.1.16.3)*

**The debt-equity ratio quoted in financial bids in eight four lane projects was not observed while borrowing the loans from financial institutions**

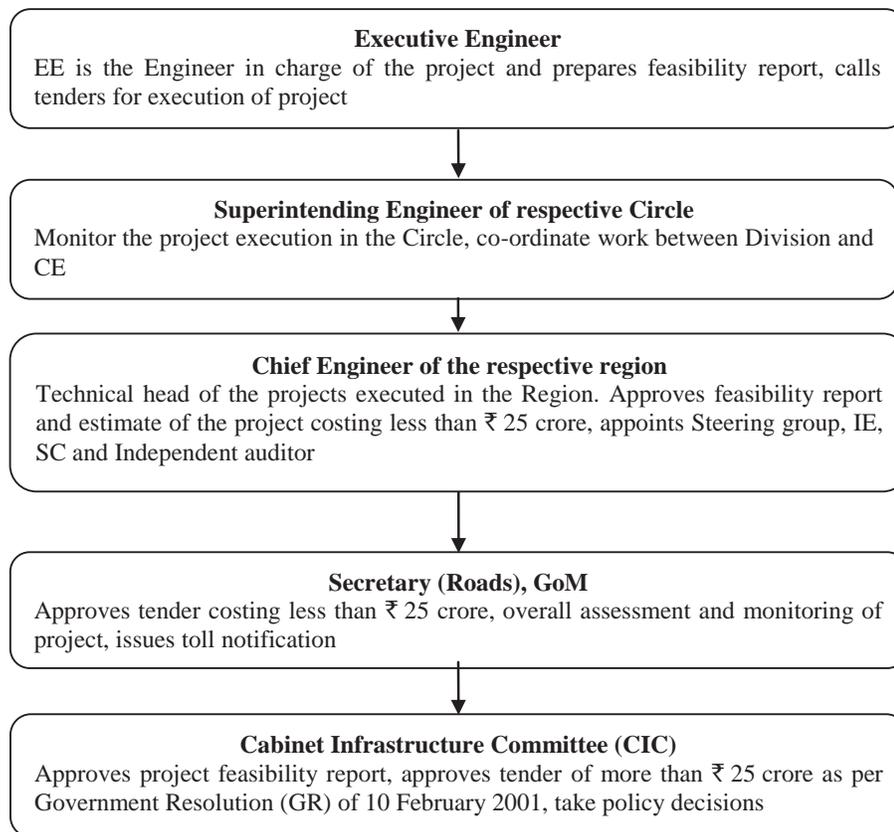
*(Paragraph 2.1.16.4)*

### 2.1.1 Introduction

Government of Maharashtra (GoM), Public Works Department (PWD), formulated (1996) a policy to finance road development projects, improving existing roads and construction of roads, bridges, Rail over bridges (ROB) *etc.* through private sector participation. The GoM constituted<sup>4</sup> (1996) a Cabinet Infrastructure Committee (CIC) under the Chairmanship of Chief Minister to approve the projects being taken under Public Private Participation (PPP). Construction of roads and bridges under PPP in the State is also done by other Government agencies like Maharashtra State Road Development Corporation (MSRDC) and Mumbai Metropolitan Region Development Authority (MMRDA).

### 2.1.2 Organisational set up

The Secretary is the overall in-charge of the PWD assisted by the Chief Engineers (CE), Superintending Engineers (SE) and Executive Engineers (EE). In addition, an Independent Engineer (IE)/ Supervision consultant (SC), Steering Group, Proof Consultant *etc.*, are also involved in the implementation and monitoring of PPP projects. The functional set-up in the execution of PPP in the State is given in the chart below:



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<sup>4</sup> The committee reconstituted in December 2004 comprised of Deputy Chief Minister, Minister from Finance and Planning, Industry, Water Resource, Transport and Ports, Chief Secretary, Principal Secretary (Planning as an invitee), while Additional Chief secretary (Finance and Planning) and Principal Secretary (Law and Judiciary) were the permanent invitees

### 2.1.3 Audit Objective

Audit objectives were to ascertain whether:

- planning for execution of projects and preparation of estimates were done properly after adequate study;
- tenders were invited and contracts awarded according to competitive processes and the execution of the projects was in conformity with the terms of the agreements;
- there existed monitoring controls to ensure that the roads and bridges were constructed as planned; and
- adequate accounting framework and auditing arrangements exist to enable the Government to access the accounts of PPP projects.

### 2.1.4 Audit criteria

Audit criteria were derived from the following:

- Policy decisions, guidelines and orders on PPP projects by GoM;
- Detailed project report (DPR), Feasibility report (FR)
- Model concession agreement on PPP brought out by Government of India (GoI) and ‘P-Form’ of GoM;
- Maharashtra Public Works (MPW) manual and code;
- Indian Road Congress (IRC) specifications for road works; and
- Concession agreement entered into with the concessionaire

### 2.1.5 Audit scope and methodology

A performance audit on the construction of roads and bridges under PPP taken up by the PWD was conducted during February and July 2014. Eleven projects<sup>5</sup> (eight four-lane projects out of 33 and three two-lane projects out of 14<sup>6</sup>) were selected through stratified sampling method<sup>7</sup>. Audit scrutinised the records maintained by the offices of the Secretary, PWD at Mantralaya; CEs of seven<sup>8</sup> Public Works Region and EEs of respective Public Works divisions.

An entry conference was held on 5 May 2014 with the Secretary, PWD wherein the audit objectives, criteria, scope and methodology of audit were discussed. Joint inspection with Departmental officials was also done in respect of the selected projects. The audit findings were discussed with the Secretary, PWD in the exit conference held in 13 November 2014. The reply

<sup>5</sup> Four lane: Sion- Panvel; Chinchoti-Kaman-Anjur Phata-Mankoli; Baramati- Phaltan-Lonand-Shirwal; Jam-Warora; Manor-Wada-Bhiwandi; Shirur-Tajband-Narshi-Biloli; Nashik-Niphad- Vaijapur; Kasheli Bridge; Two lane: Alibag-Pen-Khopoli Road; Malkapur –Buldhana-Chikhali road and Aundha-Chondi- Basmat road

<sup>6</sup> Out of 40 two lane BOT projects, the GoM decided (27 June 2014) to denotify toll collection in 26 projects

<sup>7</sup> The project was stratified based on cost of the project. The cost of project adopted for stratification in respect of four lane project was (a) up to ₹ 250 crore, (b) ₹ 250 to ₹ 500 crore and (c) above ₹ 500 crore. Two lane projects were stratified as (a) up to ₹ 10 crore (b) ₹ 10 crore to ₹ 30 crore (c) above ₹ 30 crore. The selection of projects based on defined strata was done using IDEA software

<sup>8</sup> Amravati, Aurangabad, Mumbai, Nagpur, Nashik, Pune and Special Project Mumbai

of the Government was also received in November 2014 which has been suitably incorporated in the performance audit.

### 2.1.5.1 System of PPP projects

Government of Maharashtra has laid down an elaborate system for finalisation of PPP projects in the State. This has been elaborated below:

- **Feasibility Report**

Every PPP project is based on a Feasibility Report (FR) which consists of technical and financial feasibility. Technical feasibility is done to decide the scope of the project while the financial feasibility based on traffic count is analysed through the cash inflow, total project cost (TPC), repairs and maintenance cost and suitable concession period is worked out. The traffic density is based on actual traffic count survey of each category of vehicle for seven days in the months of May and December. Based on the project FR, which is scrutinised at various levels in the PWD and after obtaining consent of various departments *viz.* Planning, Finance, Revenue and Forests, Law and Judiciary, it is forwarded to CIC for its approval. The Central/ State Government provides Viability Gap Fund up to 40 *per cent*<sup>9</sup> of the project cost for projects which are economically justified, but fall short of financial viability due to long gestation period. The bid is finally accepted after approval at CIC level.

- **Tendering**

On approval of the project, notice inviting tender (NIT) for projects costing up to ₹ 25 crore, should be published in State level newspapers and for projects above ₹ 25 crore should be published in national and international level newspapers. The period prescribed as per GR of February 2001 for submission of tenders from the date of publication for projects up to ₹ 25 crore is two months, above ₹ 25 crore and up to ₹ 50 crore is three months and above ₹ 50 crore is four months.

Two stage bidding *i.e.* Request for Qualification (RFQ) and Request for Proposal (RFP) is carried out for projects costing above ₹ 50 crore. The RFQ and the RFP are evaluated at CE level and approved by the GoM. The bidder who fulfills the minimum criteria is allowed to bid. The selection of bidder is then done on the basis of the lowest concession period or VGF quoted by the bidder.

- **Concession Agreements**

The GoM had been entering into a Concession Agreement (CA) on 'P-Form' introduced in 2006 for PPP projects. After the Planning Commission, GoI, brought out (2009) a separate Model Concession Agreement (MCA) for PPP for National and State Highways (SH), both the formats are used for entering into CA for PPP projects.

- **Post tendering**

A letter of acceptance is issued to the selected bidder specifying the due dates

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<sup>9</sup> VGF up to 20 *per cent* of the project cost is provided by GoI while additional VGF up to 20 *per cent* is provided by the State Government, if required

for deposit of performance security and execution of CA. The CA contains the terms and conditions (financial closure, obtaining statutory clearances, providing Right of Way (ROW), land acquisition) to be fulfilled by the PWD as well as the concessionaire before issue of work order.

The CA permits formation of Special Purpose Vehicle (SPV) by the concessionaire for implementation of the project. The aggregate equity share holding of the concessionaire in the issued and paid up equity share capital of the SPV shall not be less than 51 *per cent* until expiry of three years following Commercial Operation Date (COD) and 26 *per cent* during the remaining operation period.

Financial closure involves fulfillment of all conditions precedent to the initial availability of funds under the financing arrangement which is required to be achieved by the concessionaire within 180 days from the date of agreement for MCA. In MCA, extension up to 120 days is allowed subject to payment of damages to the Government @ 0.1 *per cent* of the Performance Security for each day of delay. In the ‘P-Form’ though no time limit is prescribed, different conditions are prescribed in the Common Set of Deviations (CSD) which forms part of the CA for levy of penalty. The financial closure also requires the concessionaire to adhere to the debt-equity ratio as indicated in the financial bids. In the case of MCA, the concessionaires are required to maintain escrow accounts for the loan availed by them from the banks for the project.

Environment clearance is required to be obtained from State Environment Impact Assessment Authority (SEIAA) in all the new SH projects and for expansion of existing SH projects greater than 30 km involving additional ROW greater than 20 meters. In MCA, the PWD is responsible for land acquisition required for the project, whereas the concessionaire is responsible for the same in ‘P-Form’ agreements.

- **Execution/Monitoring**

The proof consultant appointed by the CE has to scrutinise the designs prepared by the RCC<sup>10</sup> Engineer/Design Consultant of the concessionaire and get it approved from the Design Approving Engineer *i.e.* SE, Design Circle (DC) (Bridge). The SC<sup>11</sup> (P-Form) / IE (MCA) are appointed for overall monitoring of the projects. The appointment of IE by the PWD shall be made within 90 days from the date of agreement for a period of three years (two years and one year during construction and operation period respectively). The authority may terminate the appointment of IE at any time, but only after appointment of another IE.

On the request of the concessionaire, the Engineer in Charge (EIC)/IE shall issue a Provisional Completion Certificate (PCC), if the requisite tests are successful and all parts of the project can be legally, safely and reliably opened to commercial operation. In case of ‘P-Form’, PCC shall be issued after completion of 98 *per cent* of project cost and in case of MCA on completion of 75 *per cent* of project length. The PCC shall be appended with a

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<sup>10</sup> Reinforced Cement Concrete

<sup>11</sup> ‘P-Form’ provided for submission of monthly report during construction and quarterly report during operation to the Authority and Engineer in Charge by the SC

list of outstanding items (Punch List) which is required to be completed by the concessionaire within 60 days in 'P-Form'/120 days in MCA of issue of such PCC, failing which the punch list items should be executed by the PWD at the risk and cost of the concessionaire. On completion of the works included in the punch list, the final completion certificate is issued.

- **Revenue sharing**

Revenue sharing clause exists in 'P-Form' CA for projects undertaken by PWD which states a joint survey would be taken every year after completion of five years from the COD. On the basis of this joint survey, the PWD assesses the actual traffic for the entire year and compares it with the estimated traffic as indicated in the cash flow submitted by the concessionaire. The excess toll collection over the estimated collection is shared between the concessionaire and PWD. In case of MCA projects, a joint survey shall be taken after 10 years of concession period and in the event of actual traffic exceeding /falling short of the target traffic, the concession period shall be modified suitably. In none of the test-checked cases, the stipulated date for conducting such a survey was reached.

<b>Audit findings</b>
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<b>2.1.6 Planning</b>
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The GoM prepared a Road Development Plan (RDP) for 20 years from 1961 onwards with a view to develop the State socially and financially. The RDP included details of the district-wise national highways, express highways, major State highways, State highways, major district roads. The roads were to be developed based on traffic potential and importance of State road projects. Proposals are received from the field offices of PWD for taking up projects under PPP.

Audit noticed that the RDP was a general plan detailing the length of road to be developed or widened as per availability of resources. However, short/medium term plan based on the RDP specifying the projects to be taken, the executing agency and the mode of execution of project, was not prepared. The FD had also recommended (October 2010) preparation of short and medium term plan however, no action was taken.

Audit findings in respect of test-checked projects is discussed below:

<b>2.1.7 Sion-Panvel Project</b>
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**Project profile**

<i>Name of Project</i>	<i>Improvement to Sion-Panvel Special State Highway (Chainage (ch.) 140/690 to ch.115/800) taken up on BOT basis under 'P-Form'</i>
<i>CIC approval to project</i>	<i>18 June 2009, with estimated project cost of ₹845 crore with a concession period of 14 years and three months including three year construction period</i>
<i>CIC approval to tender</i>	<i>25 February 2010, project cost of ₹1,220 crore with State Government Contribution of ₹390 crore to be paid in 4<sup>th</sup> year (₹200 crore) and 5<sup>th</sup> year (₹190 crore), concession period of 17 years and five months</i>
<i>Name of the successful bidder</i>	<i>IVRCL &amp; KIPL Joint Venture (JV)</i>
<i>SPV</i>	<i>Sion Panvel Tollways Private Ltd.</i>
<i>Date of LOA/ financial closure/ Work order</i>	<i>15 September 2010/30 May 2011/30 May 2011</i>
<i>Component of project</i>	<i>Length of road 24.890 Km. Construction of 5+5 lane road along with</i>

	<i>three flyovers, Vehicle Under Passes (VUP), Rail over bridge (ROBs), Foot Over Bridges (FOBs), service road</i>
<i>Status of project</i>	<i>Stipulated period of completion of work was 29 May 2014. However, project was not completed as of December 2014</i>

### 2.1.7.1 Planning

The CIC accorded (October 2006) in-principle approval to the project; however, there was a delay in its implementation due to delay in finalising the executing agency *i.e.* MSRDC or PWD. The GoM stated that after deliberating the issue at various levels it was decided (June 2009) to allot the project to PWD.

### 2.1.7.2 Feasibility Report

- New items of work and quantity of existing items increased leading to increase in cost by ₹ 172.80 crore while two items valuing ₹ 13.78 crore were deleted at the time of tendering. The GoM stated that the items were included considering site and project specific requirements.
- Thickness of Dry Lean Concrete (DLC) was considered as 150 mm in tendering instead of 200 mm as per FR and the length of the service road was reduced from 26.81 km to 8.14 km during the pre-bid meeting.
- An amount of ₹ 65.00 crore was considered for construction of retaining wall without detailing its quantity (FR mentioned ‘as required’).

### 2.1.7.3 Tendering

- Four bidders<sup>12</sup> were denied the purchase of blank tender forms citing absence of EE thereby blocking their participation and restricting competition. The matter was brought to the notice (July 2009) of the Government by the four bidders. The GoM stated that letter of withdrawal of dissent have been received from the bidders. Reply is not correct as letter of withdrawal of dissent was received only from one bidder.
- The eligibility criteria of minimum net-worth and required minimum project size for determining the experience of bidder were relaxed during tendering without justification. Moreover, eligibility of bidders were evaluated considering old project cost of ₹ 845 crore as against the revised project cost of ₹ 1,198.32 crore. The GoM stated that the eligibility criteria was modified for more competition. Reply is not acceptable as the relaxation of the eligibility criteria could accommodate ineligible bidders.
- The project cost quoted by the bidder included component of tax liability (₹ 145.71 crore) and miscellaneous expenditure (₹ 24.68 crore) without proper justification. The department neither ascertained the applicability of provision of tax liability of ₹ 145.71 crore nor its actual payment by the concessionaire for assessing the realistic project cost.
- As per State policy of June 2000 revised from time to time up to July 2009 the minimum distance between two plazas should be 35 – 40 km. However, it was seen that the distance between the Vashi toll plaza and the Kamothe toll plaza for the Sion-Panvel project was only 16.2 km.

<sup>12</sup> Reliance Infra, Gammon Infrastructure Limited, Mahavir Roads and Infrastructure Private Limited and Pratibha Industries Limited

#### 2.1.7.4 Implementation of project

- There was delay in issue of LOA and in achieving the financial closure which resulted in delay in commencement of project by more than a year. The GoM while accepting the facts, however, stated that no extra concession period was granted. Further, the project was still incomplete (November 2014) even though the stipulated date of completion of the project was 29 May 2014. The EE served notice (May 2014) for slow progress of work and levied liquidated damages (LD) @ ₹ one lakh per day with effect from 30 May 2014 upto 30 October 2014 instead of @ ₹ four lakh per day as per CA, which was yet to be recovered (November 2014).
- It was observed that the SE, Design Circle (DC) had informed (January 2012) the CE, Special Project, Mumbai, that the design criteria published in the tender documents had provisions related to issues like loading, permissible tensile stress *etc.* which were contradictory to the standard design criteria adopted by design circle and would have significant effect on structural safety and cost of structure. The GoM stated that an additional design criteria was issued (March 2012). The reply is silent on whether the consent of SE, DC on the additional design criteria was sought by the PWD.
- It was observed that despite the willingness shown by SE, DC to perform the work of proof consultant, a private proof consultant namely Akar Abhinav Consultant Private Limited (AACPL) was appointed (February 2012) at the cost of ₹60.00 lakh. The GoM stated that considering the shortage of staff with design circle and urgency of work, the appointment of proof consultant was approved by the Government.
- As per sub-clause 2.1(B) of tender, all the existing structures<sup>13</sup> handed over to the concessionaire shall be renovated/upgraded and maintained for the entire concession period. After handing over the structures, the concessionaire would immediately commence maintenance and within 30 days carry out the structural audit of these structures and prepare upgradation/ renovation plan accordingly and get it approved from the Structural and Technical Audit Committee<sup>14</sup> (STAC). However, the structural audit report was submitted to STAC in March 2014 *i.e.* after a lapse of 21 months from the date of work order. The STAC observed many flaws in the report and recommended the concessionaire to carry out further tests to finalise the upgradation/renovation plans, which was yet to be taken up (November 2014). The GoM stated that action had been initiated as per the recommendations of the STAC.
- Due to non-availability of natural sand, the CE approved (March 2012) use of 50 *per cent* stone dust with natural sand for maximum six months or till availability of natural sand, whichever was earlier. The SE, Mumbai Construction Circle, was instructed to work out the financial implication and revise the cash flow in case of saving due to use of stone dust. However, neither the period for usage of stone dust was adhered to nor financial implication worked out. Further, the concessionaire continued to utilise the stone dust and even requested (January 2014) for use of

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<sup>13</sup> Flyovers, foot over bridges, vehicle under pass *etc.*

<sup>14</sup> CE Special project, PWD Mumbai Region, SE, Mumbai Construction Circle, SE, Design Circle, representative of concessionaire and consultant, EE, MBC Kurla

100 per cent stone dust on which the CE instructed the SE/EE to examine the financial implication.

- As per contract, the concessionaire was required to carry out various types of tests as per Schedule ‘M’ of the CA. Out of total tests, minimum 30 per cent of tests were to be carried out from Government laboratory, Vigilance and Quality Control Circle and balance from the field laboratory. Though the required tests from field laboratory were sufficient, shortfalls<sup>15</sup> ranging between 17 per cent and 56 per cent in conducting quality tests from Government Laboratories were noticed.

#### 2.1.7.5 Inadequate supervision/monitoring of project

The SC was not appointed by the PWD for overall monitoring and supervision of the work. Further, proper records relating to regular supervision of work and corrective measures taken in case of deficient execution were not maintained by the EIC. The GoM accepted that the work of SC was being carried out by the PWD engineers. However, the supervision records were not maintained by the PWD.

#### 2.1.8 Chinchoti Kaman Anjur Phata Mankoli Project

##### Project profile

<i>Name of Project</i>	<i>Four laning of Chinchoti Kaman Anjur Phata to Mankoli Roadmajor SH-4 (ch.0/000 to 26/425) in taluka Bhiwandi, district Thane on BOT basis under ‘P-Form’</i>
<i>CIC approval to project</i>	<i>23 February 2007, with project cost of ₹96 crore and concession period of 16 years and nine months including two years construction period</i>
<i>CIC approval to tender</i>	<i>6 May 2008, with project cost of ₹120.51 crore and concession period of 24 years and three months including 30 months construction period</i>
<i>Successful bidder</i>	<i>Bharat Udyog Limited and Jaihind Finance (I) Limited (JV)</i>
<i>SPV</i>	<i>“BUL Infra Developers” approval to which was accorded by GoM on 1 December 2009 and on being declared defaulter by the bank, Supreme Vasai Bhiwandi Tollways Pvt. Ltd. to whom GoM accorded in-principle approval on 3 October 2013</i>
<i>Date of LOA/ financial closure/ Work order</i>	<i>30 June 2008/10 June 2009/28 August 2009</i>
<i>Component of project</i>	<i>Length of the road 26.425 km. The project was divided into two phases Phase-I “Chinchoti Kaman to Anjur Phata” (km 0/000 to 22/600) and Phase-II “Anjur Phata to Mankoli” (km 22/600 to 26/425). Proposed toll plaza Malodi in Km 13/600. On completion of phase-I work toll collection was to be started</i>
<i>Status of project</i>	<i>PCC issued on 07 January 2012 and the toll notification was issued on 19 January 2012. Final completion certificate was yet to be issued</i>

##### 2.1.8.1 Tendering

- The tender notice (March 2007) was not published in international newspapers. Further, the period for submission of tender was three months instead of four months.
- Blank tender forms were not issued to two<sup>16</sup> prospective bidders citing absence of tender clerk and EE, thus, blocking their participation in the

<sup>15</sup> out of 33,748 tests to be conducted by Government Laboratory only 27,769 tests were conducted

<sup>16</sup> Atlanta Limited and Rohan Rajdeep

bidding process. The matter was brought to the Government's notice (August 2007) by the bidders. The GoM stated that the EE himself investigated the matter and found no reason for further investigation which was communicated (September 2007) to the SE. Reply is not acceptable as the matter should have been investigated at Government level to assess the failure of EE in providing tender forms.

#### **2.1.8.2 Land acquisition**

The concessionaire was required to deposit ₹ 5.07 crore within one month from the work order *i.e.* upto September 2009 for acquiring land. However, the entire amount was deposited in five installments between September 2009 and April 2010. It was observed that as against the total required land of 6.80 hectare (ha), payment of ₹ 4.23 crore had been made (4.73 ha) and the balance amount of ₹ 1.74 crore (2.07 ha) was yet to be incurred.

#### **2.1.8.3 Inadequate supervision/monitoring of project**

- Scrutiny revealed that the provision of appointment of SC was deleted and EIC was entrusted the duty in violation of Government policy. Further, no proper records were maintained relating to regular supervision of work and corrective measures taken in case of deficient execution.
- The concessionaire was required to carry out various types of tests as per Schedule 'M' in CA. Out of total tests, minimum 20 *per cent* of tests were to be carried out from Government laboratory, Vigilance and Quality Control Circle and balance from the field laboratory. Though the required tests from field laboratory were sufficient, shortfalls<sup>17</sup> in conducting quality tests from Government laboratories were noticed ranging between seven *per cent* and 55 *per cent*.

#### **2.1.8.4 Issue of Provisional Completion Certificate**

As per CA, toll collection was to be allowed only after issue of completion certificate of Phase-I work. Though the concessionaire had completed 98 *per cent* of the cost of works under Phase-I, PCC was issued (January 2012) allowing early start of toll collection.

#### **2.1.8.5 Collection of toll**

As per Article 10.1(b) of the 'P-Form', in the event of the concessionaire employing the funds borrowed from the lenders to finance the project, the provision relating to lenders including those relating to financial closure and substitution agreement shall apply. Article 4 of substitution agreement provides that an escrow account should be opened with lead bank in the consortium of banks and the concessionaire should deposit all the cash flow in the escrow account. The concessionaire raised a loan of ₹ 137 crore from financial institutions<sup>18</sup> but stopped depositing the fund into escrow account since June 2012. Declaring the concessionaire a defaulter, the bank entered into a substitution agreement with another agency *viz.* "Supreme Infrastructure India Ltd. (SIIL)" and requested (May 2013) GoM to accord acceptance of the same. However, pending approval of the GoM, the bank authorised

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<sup>17</sup> out of 16,229 tests to be conducted by the Government Laboratory only 7,963 tests were conducted

<sup>18</sup> Central Bank of India, Punjab National Bank and State Bank of India

(12 June 2013) SIIL to collect toll. The GoM belatedly accorded in-principle approval (03 October 2013) to the substitution agreement, however, the toll notification in the name of the new concessionaire had not been issued till date (November 2014). The GoM stated that the toll notification already existed in the name of the earlier concessionaire and the change of name would be done in due course.

### 2.1.9 Baramati Phaltan Lonand Shirwal Project

#### Project profile

Name of Project	Four-laning of Baramati Phaltan Road (SH 10) Km 42/400 to 64/300 and Phaltan Lonand to Shirwal Road (SH 70) Km 136/00 to 80/00 (BPLS) on Design, Build, Operate, Finance and Transfer (DBOFT) basis under MCA
CIC approval to project	26 December 2007, with project cost of ₹219.67 crore and concession period of 25 years including three years construction period. To make the project viable, VGF of ₹87.87 crore (40 per cent) was considered
CIC approval to tender	18 August 2009, with project cost of ₹355.65 crore with VGF of ₹138.70 crore
Name of the successful bidder	IVRCL Infra and Project Limited
SPV	“SPB Developers Pvt. Ltd.” approval to which was accorded by GoM on 01 October 2009
Date of LOA/ financial closure/ Work order	27 August 2009/6 March 2010/ 22 February 2010
Component of project	Length of the road 77.90 km. The project length was divided into three sections and three toll plazas
Approval of Empowered Institution (GoI) to VGF	The final approval of Empowered Institution <sup>19</sup> (EI) was granted in March 2011 with VGF of ₹122.09 crore (with ₹67.80 crore from GOI and remaining ₹54.29 crore from State Government).
Status of project	The project is incomplete.

#### 2.1.9.1 Tendering

- The lowest bidder reduced its VGF offer of ₹ 164.67 crore (46.80 per cent of the project cost) to ₹ 122.09 crore (34.32 per cent of the project cost) after negotiation subject to grant of permission for collection of toll on completion of each section of project (total three sections). The change in the terms of the CA post opening of financial bid was irregular and resulted in undue favour to the entrepreneur. The GoM stated that final negotiation was made with lowest bidder and offer was reduced in favour of Government.

- As per article 25.2 of the MCA, the VGF support shall be equal to the sum specified in the bid and as accepted by the Authority, but in no case greater than the equity. However, the VGF of ₹ 122.09 crore was granted against the concessionaire’s actual equity of ₹ 25.93 crore by deleting the provision of article 25 of MCA “but in no case greater than the equity” to provide maximum VGF to the concessionaire.

#### 2.1.9.2 Implementation of project

- An amount of ₹ 15.16 crore was considered in DPR for acquisition of 130.53 ha of land. While submitting proposal (January 2011) to GoI for final approval of VGF, the department claimed that entire land was available for the project. However, it was noticed that only 37.23 ha of land was acquired at a

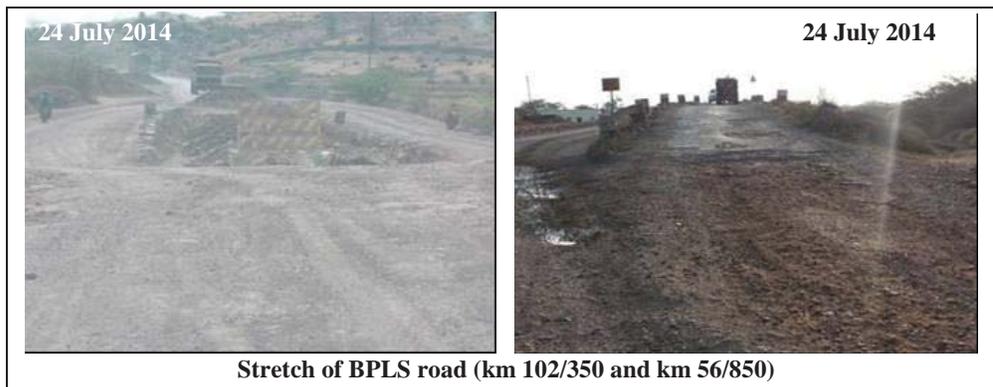
<sup>19</sup> Approves the VGF grant being provided to the concessionaire

cost of ₹ 9.87 crore through private negotiations and an amount of ₹ 22.59 crore was deposited with the Sub-Divisional Officer (SDO) for acquisition of balance 93.30 ha of land as of November 2014.

- As per PWD norms, the cost incurred on shifting of electrical lines shall be borne equally by PWD and Maharashtra State Electricity Board (MSEB). Though, an expenditure of ₹ 5.75 crore was incurred on electrical shifting by PWD, an amount of ₹ 2.87 crore towards MSEB's share demanded in April 2010 was yet to be recovered (November 2014).
- Though the scheduled date of commercial operation of project was due on 5 March 2013, it could not be achieved (November 2014) due to non-availability of fund, non-acquisition of land for ROW and pending finalisation of concessionaire's compensation claim.

#### **2.1.9.3 Breach of maintenance obligations**

As per the CA, the concessionaire was to maintain and repair roads during the concession period. However, it was noticed that the concessionaire was not taking corrective measures to the deficiencies pointed out by IE and PWD from time to time. The IE recommended (February 2014) to initiate appropriate action as per provisions of CA for non-adherence of maintenance activity. Giving the list of unsafe under-construction zones, the IE specifically mentioned (June 2014) that the stretch of road (indicated in the image below) was unsafe, hazardous and accident-prone, endangering lives of the road users. However, records with the PWD indicated no action was taken by the PWD as of June 2014. Further, the pothole filling works amounting to ₹ 16.32 lakh were executed (February 2014) by division in the ch. Km 86/000 to km 100/000 out of VGF grant available with the division at the risk and cost of the concessionaire.



#### **2.1.9.4 Inadequate supervision/monitoring of project**

The IE<sup>20</sup> was appointed (October 2010) after a delay of more than a year as against appointment of IE not later than 90 days from the date of CA. The GoM while accepting the fact stated that the work was supervised by the PWD through EIC for the period prior to the appointment of IE. The reply is not acceptable as the delay in appointment of IE was in violation of the CA. Further, monthly progress reports (MPRs) and inspection notes of PWD prior to the appointment of IE were not found on record.

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<sup>20</sup> M/s Consulting Engineering Services Limited and Astute Infrastructure Limited (JV)

<b>2.1.10 Jam Warora Project</b>
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**Project profile**

<i>Name of Project</i>	<i>Four-laning of Jam Warora Chandrapur Road (SH 264) (Ch.0/000 to 40/000) (Section- Jam to Warora) on DBOFT basis under MCA</i>
<i>CIC approval to project</i>	<i>10 September 2008, with project cost of ₹233 crore, fixed concession period of 30 years including two years construction period and VGF of ₹93.20 crore.</i>
<i>CIC approval to tender</i>	<i>31 August 2010 with project cost of ₹223.61 crore involving VGF ₹99.67 crore (Central share ₹44.72 crore and State share ₹54.95), ₹4.65 crore for the cost of buy back of old project and utility shifting to be borne by PWD. Fixed concession period of 30 years including construction period of three years.</i>
<i>Name of the successful bidder</i>	<i>Eagle construction company (JV)</i>
<i>SPV</i>	<i>ECA Infrastructure India Private Limited approved by GoM on 22 February 2011.</i>
<i>Approval of EI (GoI) to VGF</i>	<i>The final approval was granted on 6 March 2012.</i>
<i>Date of LOA/ financial closure/ Work order</i>	<i>26 October 2010/01 October 2011/05 April 2011.</i>
<i>Component of project</i>	<i>Length of road : 40 km. Construction of four lane road along with concrete gutters, eight minor and one major bridge</i>
<i>Status of project</i>	<i>Project is complete. Toll notification issued on 25 July 2012. Final completion certificate issued on 25 September 2012.</i>

**2.1.10.1 Tendering**

Though the lowest bidder's offer for VGF was ₹ 99.67 crore (44.57 per cent) of project cost, the same was approved (August 2010) by CIC against the prescribed norms of 40 per cent. However, on being objected (January 2012) by the GoI's Empowered Institution (EI) that the bid should have been rejected on account of non-responsive offer, the VGF was reduced (February 2012) to ₹ 89.43 crore after entering (February 2011) into CA. The GoM stated that offer of the concessionaire was approved by CIC and the concessionaire reduced their offer within 40 per cent of total project cost.

**2.1.10.2 Financing of the project**

As per article 25.2 of the CA, the VGF support shall be equal to the sum specified in the bid and as accepted by the Authority, but in no case greater than the equity. However, the VGF of ₹ 89.43 crore was more than the equity of ₹ 34.25 crore of the concessionaire. The GoM stated that as per GoI's letter (April 2009) VGF support shall not be more than twice the equity and the same concept was followed for approval of GoI in the EI committee meeting. Reply is not acceptable as the VGF granted in this case was more than twice the equity.

**2.1.10.3 Implementation of the project**

- In the DPR the crust thickness of the road was considered at 720 mm as per IRC 37/2001. However, test reports revealed that the actual crust thickness of the road ranged between 594 mm and 613 mm and was thus of inferior quality.
- Article 17.15 of CA stipulate that the concessionaire shall not undertake or permit any form of commercial advertising, display or hoarding at any place on the site. It was, however, noticed during joint site visit (June 2014) with the PWD officials that commercial advertisement was

displayed by the concessionaire on the median verge<sup>21</sup> in violation of CA terms.



Before audit



After audit

The GoM accepted the fact.

#### 2.1.10.4 Collection of toll

The toll rates adopted for projects were more than the rates declared by the PWD in toll policy of July 2009 applicable for the project. The GoM stated that at the time of approval of the project by CIC, the toll policy of July 2009 was not in force. Reply is not acceptable as the approval to the tender was in August 2010 which was more than a year after the July 2009 toll policy and the GoM could have considered the same at the time of approval of tender. The rate of toll being charged and the toll rate as per July 2009 is given in **Table 2.1.1** below:

**Table 2.1.1: Actual Toll charged vis-à-vis Toll as per Government Resolution**

Category of vehicle	Rates as per GR dated 30 July 2009 (₹)	Rates of toll being charged as per Agreement (₹)	Difference (₹)
Type 2A	30	45	15
Type 2B	55	65	10
Type 3	110	130	20
Type 4	180	220	40

Source : Concession Agreement of JW and GR of July 2009

The impact of excess amount collected could not be ascertained in absence of actual toll amount collected by the concessionaire.

#### 2.1.11 Manor-Wada-Bhiwandi Project

##### Project profile

Name of Project	Four-laning of Wada-Bhiwandi Road SH-35 (ch.49/00 to 89/070) and Manor Wada SH-34 (ch.29/550 to 53/800) on BOT basis under 'P-Form'
CIC approval to project	14 January 2009, project cost of ₹280 crore and concession period of 21 years including two years construction period.
CIC approval to tender	18 August 2009, project cost of ₹339.76 crore and concession period of 22 years and 10 months including two years construction period.
Name of the successful bidder	Ram Infrastructure Limited and Tapi Prestress Product Limited (JV)
SPV	Supreme Manor Wada Bhiwandi Infrastructure Private Ltd.
Date of LOA/ financial closure/ Work order	24 September 2009/30 August 2010 /11 October 2010
Component of project	Length of road: 64.320 km. Construction of four-laning of road along with four major bridges, three VUPs and other facilities
Status of project	PCC issued on 25 February 2013 and the toll notification was issued on 01 March 2013. Final completion certificate was yet to be issued.

<sup>21</sup> A dividing strip in the middle of road

### 2.1.11.1 Tendering

- While submitting the tender proposal to the CIC, the concessionaire's offer of ₹ 339.76 crore against the original project cost of ₹ 280 crore put to tender was compared with the revised project cost of ₹ 343.69 crore. Audit observed that the revised project cost was incorrectly calculated at ₹ 343.69 crore instead of ₹ 286.12 crore due to calculating the per kilometer cost at ₹ 1.5 crore per km instead of ₹ 15 lakh per km. Considering the project cost of ₹ 286.12 crore, the concessionaire's offer was 19 *per cent* above the tendered cost. The CIC approved (August 2009) the CA under the assumption that concessionaire's offer was lower than the revised estimated cost. The GoM stated that the concession period was the lowest as compared to other bidders and PWD prepares estimates for guidelines purpose only and the concessionaire's offer being higher or lower than the estimated cost was not the criteria for selection.
- The entrepreneur JV<sup>22</sup> selected for the project formed a SPV *viz.* Supreme Manor Wada Bhiwandi Infrastructure Private Limited with authorised share capital of ₹ 10 lakh as against the required equity component of ₹ 101.93 crore for the project costing ₹ 339.76 crore. As per the Memorandum of Understanding (MoU), of the issued and paid up share capital 45 and six *per cent* shares were to be held by the two companies of JV while the balance 49 *per cent* was to be held by new company *viz.* Supreme Infrastructure BOT Private Limited (SIBPL). The MoU provided that the SIBPL would acquire 74 *per cent* of total shares leaving only 26 *per cent* equity share capital with the successful bidder at the end of three years from the date of concession agreement (08 March 2010). This was in contravention of CA condition (Article 20(xi)) according to which the aggregate shareholding of JV in the issued and paid up equity share capital shall not be less than 51 *per cent* until expiry of three years following the COD. Reply of GoM was silent about entry of new company with a major stake in the SPV in violation of CA condition.
- Presence of houses and temples not considered in FR led to deletion of four laning of 3.5 km of road adjacent to Bhiwandi city. As an alternative, a new bypass road of 7.9 km costing ₹ 52.70 crore was allotted to the same concessionaire by including (July 2013) it in the original project. The Finance Department objected (August 2011) to the addition of a new bypass road at such a huge cost in the original CA without tendering. This resulted in increase of concession period by five years and eight months. The GoM stated that the bypass was constructed as per demand of public representative citing traffic congestion and hence included in the ongoing project.
- Scrutiny revealed that the cost of annual maintenance was considered at ₹ 7.76 crore in the original cash-flow with project cost as ₹ 339.76 crore during the construction period (2010-13). However, after inclusion of new bypass road (July 2013) costing ₹ 52.70 crore, the revised cash flow showed the cost of annual maintenance including the new bypass road at ₹ 12.93 crore for the same period (2010-13) instead of considering the maintenance of the

<sup>22</sup> Ram Infrastructure Ltd. and Tapi Prestress Product Limited

new bypass road from 2013-14 onwards. Thus, the concessionaire got an undue benefit of ₹ 5.17 crore resulting in extra concession period of 255 days.

#### **2.1.11.2 Implementation of project**

- More than a year had lapsed in issue of work order from the date of approval of the CA due to delay in formation of SPV and submission of performance security for construction period. The PWD did not initiate action to terminate the CA in view of non-submission of performance security and allowed the concessionaire to work on the project in spite of violation of CA conditions. Further, the project was stipulated for completion in October 2012, however, the works valued at ₹ 19.64 crore was yet to be executed in 10.12 km for want of forest land resulting in the project remaining incomplete (October 2014). The GoM stated the balance widening work would be completed in three months subsequent to getting land from Forest Department.
- As per the CA three VUPs/ FOBs costing ₹ 15 crore were to be constructed at three junctions (Ambadi, Jawhar Phata and Wada), however, two VUPs at Jawhar Phata and Wada junction were dropped from the project due to existence of heritage temple and public protest, however, the approximate<sup>23</sup> cost of ₹ 10 crore of the same was not adjusted in the cash flow.
- As per CA condition, the concession period shall be increased or decreased by one day for every ₹ 4.03 lakh increase or decrease in final land acquisition cost. The rate of ₹ 4.03 lakh was arrived at by dividing the estimated project cost with total toll period. The rate worked out on the basis of project cost was flawed, as any increase in land acquisition cost payable to concessionaire was to be compensated by increase in concession period and thus was required to be linked to the estimated toll collection. Based on the Net Present Value (NPV) of estimated toll collection during the concession period, the compensation worked out to an increase of one day for every ₹ 8.37 lakh increase in final land acquisition cost. An expenditure of ₹ 48.87 crore was incurred on acquisition of 34.22 ha land (against estimated cost of ₹ 14.79 crore included in the project cost). An area of 15.29 ha land in addition to 17.02 ha of forest land pending final approval of Forest Department was still to be acquired. Considering the flawed condition in the CA, the concessionaire would be granted increased concession period of 845 days as against 407 days as per audit calculation thereby resulting in undue benefit of ₹ 36.66 crore. Further, in the light of revised land acquisition Act enacted (2014) by GoI, the cost of acquisition of balance land would further increase.
- The works of four major bridges under the project were executed without the prior approval of the SE, DC, despite regular reminders to the concessionaire to reply/clarify the issues on the designs submitted. Due to non-compliance of the issues raised, SE, DC, Navi Mumbai closed (October 2012) the matter intimating it to the CE, PWD. However, no further action was taken by the PWD in this regard. Lack of an effective mechanism to ensure compliance to SE, DC's queries resulted in execution of bridge work without compliance of issues raised by SE, DC in violation of the CA conditions. The GoM stated that the designs were submitted to SE, DC from

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<sup>23</sup> Considering the cost of one VUP at ₹ five crore

time to time and was approved by the SE, DC. The reply is not acceptable as the SE, DC had closed the matter without receiving the compliance to issues raised, from the concessionaire.

- An amount of ₹ 2.82 crore towards performance security for operation and maintenance was required to be deposited with EIC on or before the COD as per sub-article 3.1 (a). However, the same was not deposited (November 2014) though the COD was achieved on 01 March 2013. The GoM stated that the amount would be collected from the concessionaire.

### 2.1.11.3 Inadequate supervision/monitoring of project

- It was noticed that the provision of Supervision Consultant (SC) was deleted at the time of tendering and the EIC was entrusted with the duty of SC in violation of Government policy. Further, proper records were not maintained by the EIC relating to regular supervision of work and corrective measures taken in case of deficient execution.
- As per Schedule ‘M’ of the CA, the concessionaire was required to carry out various types of tests. Out of total tests, minimum 30 per cent tests were to be carried out from Government laboratory, Vigilance and Quality Control Circle and balance from the field laboratory. Though, the required tests from field laboratory were sufficient, shortfalls<sup>24</sup> in conducting quality tests from Government Laboratories in MWB project were noticed ranging between 50 per cent and 100 per cent.

### 2.1.12 Shirur Tajband Narshi Biloli Project

#### Project profile

<i>Name of Project</i>	<i>Two-laning of Shirur Tajband Narshi (ch 0/00 to 72/500) and two laning with paved shoulder<sup>25</sup> of Narshi Biloli to State Border (ch 72/500 to 105/200) SH- 225 on DBFOT basis under MCA</i>
<i>CIC approval to project</i>	<i>14 January 2009, project cost of ₹175.48 crore with VGF of ₹58.61 crore for a fixed concession period of 30 years</i>
<i>CIC approval to tender</i>	<i>31 August 2010, project cost of ₹241.12 crore with Government contribution of ₹111.21 crore including VGF of ₹96.02 crore and concession period of 25 years including two years construction period.</i>
<i>Approval by EI</i>	<i>12 August 2009 for ₹190.18 crore which was considered in CA</i>
<i>Name of the successful bidder</i>	<i>K.T. (I) Construction Limited Indore (JV)</i>
<i>SPV</i>	<i>Kalyan Toll Private Limited, Indore</i>
<i>Date of LOA/ financial closure/ Work order</i>	<i>14 January 2011 / 30 April 2012/18 November 2011</i>
<i>Component of project</i>	<i>Length of road : 105.20 km. Construction of two- lane road, two-lane with paved shoulder, four-lane in different stretches along with various minor bridges</i>
<i>Status of project</i>	<i>PCC was issued on 15 April 2014 and the toll notification was issued on 18 June 2014</i>

<sup>24</sup> out of 11540 tests to be conducted by Government Laboratory only 8911 tests were conducted

<sup>25</sup> a part of the road that is adjacent to the regularly travelled portion of the road

### 2.1.12.1 Tendering

Though the lowest bidder's offer for VGF was ₹ 96.02 crore (50 per cent of project cost ₹ 190.18 crore), the same was approved by CIC against the prescribed norms of 40 per cent. However, on being objected by the EI, the VGF was reduced (May 2012) to ₹ 76.08 crore after entering into CA. A supplementary agreement with reduced VGF was entered into (May 2012) with the project cost as ₹ 190.18 crore. Incidentally, the CE approved (May 2012) the proposal of concessionaire revising the scope and cost of project from ₹ 190.18 crore to ₹ 175.22 crore on the ground of modified VGF. The GoM stated that the offer of the concessionaire was approved by the CIC and the concessionaire unconditionally reduced its offer within 40 per cent of TPC. Further, it was also stated that there was no revision in project scope or cost. However, the PWD's contention that the concessionaire reduced the VGF unconditionally and there was no revision in project scope or cost is factually incorrect as the IE had also referred to CE's letter of May 2012 in the MPR of May 2014 indicating revision in scope of work.

### 2.1.12.2 Financing of project

- According to the CA entered on 16 June 2011, the concessionaire was required to achieve the financial closure by 18 December 2011. Though the same was achieved only on 30 April 2012 (delay of 138 days) the liquidated damages amounting to ₹ 1.31 crore was not levied. The GoM stated that due to uncertainty in finalising the VGF amount, there was delay in the financial closure. The reply is not acceptable as the financial closure was achieved considering the original VGF, which was subsequently reduced (May 2012).
- The IE observed (April 2014) that the Bill of quantity (BOQ) submitted by the concessionaire while claiming VGF, did not conform to the progress of work while the rate of items given in BOQ was also not ascertainable. The GoM stated that the VGF released was based on MPR submitted by IE which was cross checked by EIC. The reply is not acceptable as it contradicts the IE's observation.

### 2.1.12.3 Implementation of Projects

- More than a year had lapsed in issue of work order from the date of approval of the CA due to delay in achieving financial closure. Though the project was scheduled for completion by 17 November 2013, the PCC was issued on 15 April 2014 after a delay of 149 days. For the delay, the concessionaire was liable to pay liquidated damages of ₹ 1.41 crore @ ₹ 0.95 lakh per day, however, the same was yet to be recovered (November 2014).
- The performance security of ₹ 9.51 crore required to be obtained before the appointed date as per sub-clause 4.1.3 under Article 4 was not obtained from the concessionaire. The Government stated that the bank guarantee of ₹ 11.94 crore was in possession of PWD and the obligation of performance security can be made from this bank guarantee. Reply is not factually correct as the copy of the bank guarantee of ₹ 11.94 crore pertained to another contract of the same concessionaire and had already lapsed in July 2012.

- As per Article 18 of CA, the PWD shall appoint a safety consultant not later than 90 days from the date of agreement, to carry out safety audit at the design stage of the project to recommend safety related measures to make the road safe and motorable. However, the safety consultant was not appointed (November 2014) while the road was opened (April 2014) for traffic. The GoM stated that the road safety audit was done by PWD. Reply is not convincing as the PWD had submitted (February 2013) a proposal to Government for appointment of safety consultant though the work commenced in November 2011 indicating that the safety audit was not done during the design stage.
- As per the CA, 75 per cent completion of the total project length and an assurance that the project highway can be safely and reliably used for commercial operation was required for issue of PCC. However, the percentage of completion of work was not worked out before issue of PCC. Further, the works at many stretches in between and specifically on entry point of project highway along with items related to safety measures were not taken up at time of issue of PCC.
- An amount of ₹ 12.72 crore was approved for buyback of existing BOT project without specifying the time limit for taking over the same. However, the PWD did not buyback the existing BOT project and allowed the existing concessionaire who was incidentally awarded the new project to collect the toll of ₹ 5.85 crore till the new notification was issued (June 2014). The continuation of collection of toll even after award of fresh contract was against the CIC's approval and not in order as CA condition allowed the toll operation on completion of 75 per cent of project length. Further, as per the new project, the concessionaire was to construct three new toll plazas at a cost of ₹ three crore each. However, it was noticed that only two booths were added to the existing toll plaza at Vijaynagar and did not justify the cost of ₹ three crore. The GoM while accepting the facts stated in the exit conference to adjust the differential amount for not constructing a new toll plaza.

#### **2.1.12.4 Inadequate supervision/monitoring of project**

- Scrutiny revealed that the IE was appointed on 22 July 2013 for a period of three years instead of from the date of CA *i.e.* on 16 June 2011. As the scheduled date of completion of work was November 2013, the IE was left with only four months for supervision work during the construction period. This indicated lack of supervision during June 2011 to July 2013.
- The IE issued a total of 102 Non Conformity Reports<sup>26</sup> (NCR) during August 2013 to May 2014 mainly related to quality of construction, however none of them were complied (May 2014) though PCC was issued in April 2014 indicating non-adherence to the quality aspect. The GoM stated that all the NCRs had been complied with and was accepted by the IE.

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<sup>26</sup> deviation or deficiencies in work with reference to technical specification is pointed out in NCR

### 2.1.13 Nashik Niphad Vaijapur Project

#### Project profile

<i>Name of Project</i>	<i>Four-laning of Nashik Niphad Vaijapur Aurangabad Road (SH 30) Km 155/300 to Km 179/000 and two-laning with paved side shoulders Km.235/000 to 251/300 on BOT basis under 'P-Form'</i>
<i>CIC approval to project</i>	<i>29 January 2009, project cost of ₹250 crore with VGF of ₹100 crore was approved. The revised project cost of ₹186.75 crore with VGF of ₹36.75 crore by deducting VGF ₹63.25 crore (approved in September 2005) utilised on departmentally executed works. The concession period was for 28 years with construction period of two years</i>
<i>CIC approval to tender</i>	<i>18 August 2009, project cost of ₹191.10 crore with VGF of ₹43.5 crore and concession period of 28 years including two years construction period.</i>
<i>Name of the successful bidder</i>	<i>K.T. (I) Construction Ltd. Indore and Kalyan Toll Infrastructure Pvt. Ltd.(JV)</i>
<i>SPV</i>	<i>Kalyan Infratech Private Limited, Indore</i>
<i>Date of LOA/financial closure/ Work order</i>	<i>23 October 2009/20 September 2010/17 December 2009</i>
<i>Component of project</i>	<i>Construction of 23.70 km of four-lane, 16.30 km of two-lane with paved shoulder road along with one ROB etc.</i>
<i>Status of project</i>	<i>PCC was issued on 01 March 2012 and the toll notification was issued on 21 April 2012. Final completion certificate was yet to be issued</i>

#### 2.1.13.1 Tendering

Clause 4.2.6 of tender document (Vol. II) stipulated that the traffic density in the Sinhastha Parva in the year 2003-04 had increased up to four times of the average traffic. The Concessionaire was required to consider increase in traffic for coming Sinhastha Parva to be held in 2015 and 2027. However, this aspect was not considered while making revenue projection in cash-flow and the offer of the bidder was accepted by the Government.

#### 2.1.13.2 Financing of project

- As per the CA, financial closure was required to be achieved within 120 days from the date of LOA (23 October 2009). However, the financial closure was achieved on 20 September 2010 after a delay of 211 days. In absence of any enabling clause for levy of penalty due to delay in achievement of financial closure, PWD could not levy penalty against the concessionaire.
- As per article 25.2 of the MCA, the VGF support shall in no case be greater than the equity. However, the VGF of ₹ 43.50 crore was granted as against the concessionaire's equity of ₹ 30.58 crore.

#### 2.1.13.3 Non-provision of accounting framework and auditing arrangements

Though the VGF of ₹ 43.50 crore was provided for the project, the CA was entered into on 'P-Form' rather than on MCA. Further, it did not have any provision for appointment of independent auditor/Statutory auditor to audit and verify the expenses, costs, realisation *etc.* and maintenance of Escrow account as provided in MCA. In absence of these clauses in CA, audit could not safe vouch whether the financial interest of the Government was protected.

### 2.1.13.4 Implementation of project

- The concessionaire was bound to complete the punch list items within a period of 60 days from the date of issue of PCC and obtain final completion certificate failing which Liquidated Damages (LD) for delay beyond the stipulated date of completion was to be levied at ₹ one lakh per day for 30 days, ₹ 1.5 lakh from 30 to 90 days and ₹ two lakh beyond 90 days. Though the project was scheduled for completion by 16 December 2011, PCC was issued on 01 March 2012 after a delay of 75 days. However, the LD amounting to ₹ 97.50 lakh was not recovered from the concessionaire though worked out (February 2012).
- The tolling right at one toll plaza was given to the concessionaire from the date of work order. In the event of delay in completion of project, 10 per cent of revenue collected was to be recovered for the delayed period. However, an amount of ₹ 12.20 lakh towards 10 per cent of revenue collected for the delayed period was not recovered from the concessionaire.
- The PCC was issued on 1 March 2012. As per punch list, though the work of ROB at Shilapur costing ₹ 10.40 crore was pending for want of availability of blocks by the railway authority, the cost of balance work as per punch list was considered at ₹ 3.35 crore only including ₹ one crore towards ROB. The final completion certificate was yet to be issued (November 2014) as the six-lane toll plaza at Andersul was yet to be completed for want of land. The toll notifications were issued from time to time on temporary basis for a period of six months instead of the entire concession period due to pending works.

### 2.1.14 Kasheli Bridge project

#### Project profile

<i>Name of Project</i>	<i>Construction of South Kasheli and North Kasheli Bridge at ch 8/293 along with the approaches in Km 0/00 to 8/090 on Thane Bhiwandi Wada Road Special SH in Thane District on BOT basis under 'P-Form'.</i>
<i>CIC approval to project</i>	<i>24 April 2007, project cost of ₹134.70 crore with concession period of nine years and two months including three years of construction period.</i>
<i>CIC approval to tender</i>	<i>25 June 2008, project cost of ₹227.63 crore with concession period of 23 years five months and seven days including three years of construction period.</i>
<i>Name of the successful bidder SPV</i>	<i>K.T. Construction (I) Ltd. Indore and Sangam (I) Ltd. (JV) Kalyan Sangam Infratech Ltd</i>
<i>Date of LOA/ financial closure/ Work order</i>	<i>4 September 2008/25 May 2009/12 January 2009</i>
<i>Component of project</i>	<i>Construction of two bridges and approach road etc.</i>
<i>Status of project</i>	<i>Provisional completion certificate was issued on 09 November 2011 and the toll notification was issued on 30 November 2011. Final completion certificate was yet to be issued.</i>

#### 2.1.14.1 Project financing

As per the CSD, the financial closure was to be achieved within 120 days of LOA i.e. 02 January 2009, however, the same was achieved after a delay of 143 days i.e. 25 May 2009. Though the PWD proposed recovery of damages of

₹ 47.19 lakh, the same was not recovered. Further, the work order was issued prior to the financial closure on 12 January 2009. The Government while accepting the fact stated that the amount would be recovered.

#### **2.1.14.2 Implementation of project**

- The concessionaire had deposited (during March 2009 and August 2010) only ₹ 5.50 crore against the requisite amount of ₹ 9.40 crore to be paid by February 2009 for acquisition of 8.16 ha of land. Only 04.90 ha was acquired by the PWD and the cost of acquisition of balance 03.26 ha of land was assessed at ₹ 9.54 crore due to increase in land rates. As the concessionaire did not respond to repeated reminders for depositing the balance amount, the PWD proposed (January 2014) to acquire the balance land through budget head leading to liability of ₹ 9.54 crore to the Government. The GoM stated that no amount was provided for in the budget for land acquisition. It was also added that the concession period was proposed to be reduced. However, the reply was silent about the acquisition of the balance 3.26 ha of land required for completion of the project.

- It was noticed that the bridge works were completed without the prior approval of the SE, DC, despite regular reminders to the concessionaire to reply/clarify the remarks on the designs submitted. Due to non-compliance of the issues raised by the SE, DC, the matter was closed and the same was intimated (February 2013) to the SE, Thane Circle. No further action was taken by the PWD in this regard. Lack of an effective mechanism to ensure compliance to SE, DC's queries resulted in violation of the CA conditions. The GoM stated that the designs were submitted to SE, DC from time to time and most of the component was approved by the SE, DC. The reply is not acceptable as the SE, DC had closed the matter as the concessionaire was not responding to issues raised by SE, DC.

#### **2.1.14.3 Issue of Provisional Completion Certificate**

For the purpose of issuing PCC (9 November 2011), the PWD instead of considering approved project cost of ₹ 227.63 crore, calculated 98 *per cent* of construction cost on a project cost of ₹ 201.34 crore by excluding cost of land acquisition, shifting of water supply lines, supervision charges *etc.* It was noticed that road widening along with built-up drain/sewerage work in 420 meter road length costing ₹ 2.23 crore was not taken up and position of ancillary items were not shown at the time of PCC. The project was still incomplete (October 2014).

#### **2.1.14.4 Inadequate supervision/monitoring of project**

As per Schedule 'M' in CA, the concessionaire was required to carry out various types of tests. Out of total tests, minimum 30 *per cent* of tests were to be carried out from Government laboratory, Vigilance and Quality Control Circle and balance from the field laboratory. Though the required tests from field laboratory were sufficient, shortfalls<sup>27</sup> in conducting quality tests from Government Laboratories in MWB project were noticed ranging between 34 *per cent* and 84 *per cent*.

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<sup>27</sup> out of 27,769 tests only 16,874 tests were conducted

<b>2.1.15 Two-lane projects</b>
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Three projects of two-lane were selected for detailed scrutiny and the observations are as under:

**Project profile**

<i>Name of Project</i>	<i>Improvement to Alibag-Pen-Khopoli Road SH 87 Portion between Km 29/650 to 58/00 on BOT basis under P-Form (Total length – 28.35 km)</i>	<i>Two-laning of Malkapur – Buldhana-Chikhali Road SH 176 (in km 0/00 to 71/680) in Buldhana District on BOT basis under P-Form (Total length – 71.68 km)</i>	<i>Improvement to Aundha Chondi Basmat Road in SH – 220 (km 98/00 to 118/00), District Hingoli on BOT under P-Form (Total length – 20 km)</i>
<i>Approval to project</i>	<i>Project approved by Chief Engineer on 31 March 2004 with project cost of ₹13.51 crore for concession period of five years and six months</i>	<i>Project approved by CIC on 20 September 2005 with project cost ₹38.76 crore and concession period of 19 years and nine months including two years construction period</i>	<i>Project approved by GoM on 19 September 2000 with project cost of ₹3.70 crore for concession period of 12 years including construction period of one year</i>
<i>Approval to tender</i>	<i>Approved by GoM on 26 April 2006 with project cost of ₹14.85 crore for concession period of 13 years and six months including construction period of 18 months</i>	<i>Approved by GoM on 28 July 2006 with project cost of ₹42.81 crore with concession period 19 years and eight months.</i>	<i>Approved by GoM on 20 May 2002 with project cost of ₹5.50 crore for concession period of 14 years, four months and 14 days.</i>
<i>Name of the successful bidder</i>	<i>J.M Mhatre, Panvel, Raigad</i>	<i>Buldhana Urbana co-op Credit society Ltd N.B.C (JV)</i>	<i>Keti Construction (I) Ltd.</i>
<i>Date of work order/ toll notification</i>	<i>3 July 2006 /19 June 2007</i>	<i>29 September 2006/ 25 July 2007</i>	<i>7 October 2002/ 25 February 2003</i>
<i>Component of project</i>	<i>Widening of formation width from 10 m to 12 m, strengthening of existing 7 m carriageway and widening of carriageway from 7 m to 10 m in Ch.50/00 to 54/00 km with minor bridges and RCC slab drain</i>	<i>Widening of road, minor bridge, reconstruction of bridge, widening of slab culverts, widening of Hume Pipe culverts, improvement of junction</i>	<i>Improvement to Aundha Chondi Basmat Road (SH-220) km 98/00 to 118/00 (20 km) including reconstruction of minor bridge at km106/000</i>
<i>Status of project/Date of final completion</i>	<i>Project incomplete. PCC issued on 27 April 2007</i>	<i>Project completed/ 26 September 2008</i>	<i>Project completed/ 22 April 2003</i>

**2.1.15.1 Feasibility Report**

- Traffic census was carried out by PWD for one day and three days only as against prescribed period of minimum seven days in Aundha Chondi Basmat (ACB) Road project and Malkapur-Buldana-Chikhali (MBC) Road projects respectively.
- In Alibag-Pen-Khopoli (APK) Road project, feasibility study was carried out and approved (October 2005) by CE whereas tender was floated (November 2002) on the basis of preliminary survey by PWD and the bids were submitted (July 2004). Further, after the signing of CA (July 2006), seven variations costing ₹ 4.13 crore were made in scope of work leading to claim of additional concession period of seven years by the concessionaire.
- In MBC project, Non Pressure (NP)-3 hume pipes considered in FR

for widening of road was found non-compatible with the existing NP-2 hume pipes type. The work was hence executed with NP-2 pipes.

#### **2.1.15.2 Tendering**

- In APK project a single bid (J M Mhatre) was received (July 2004) for a project cost of ₹ 14.85 crore with a concession period of 19 years and five months as against project cost of ₹ 13.51 crore with a concession period of five years and six months worked out on the basis of preliminary survey of the PWD. The SE (Special Project Circle, Navi Mumbai) proposed (November 2004) cancellation of tender in view of huge gap in concession period offered by the bidder as compared to the PWD's projection. However, CE instructed (November 2004) SE to negotiate with the entrepreneur within seven days. It was, however, observed that the entrepreneur after a lapse of seven months reduced (June 2005) the concession period to 13 years and six months. In the meanwhile, the PWD carried out a feasibility study and revised (October 2005) the project cost to ₹ 14.25 crore and the concession period to 12 years and six months due to reduction in vehicular density as compared to PWD's earlier projection. Accordingly, the tender was approved (April 2006) with a project cost of ₹ 14.85 crore having a concession period of 13 years and six months. Thus, the PWD's decision to award the tender to a single bidder and conducting feasibility study post bid submission was an attempt to justify the offer given by the entrepreneur. The GoM stated that the acceptance of tender by the PWD was judicious. Reply is not acceptable as the project awarded after conducting detailed feasibility study post receipt of bids was against normal accepted practice and should have been retendered.

- In MBC project, a single bid of Buldhana Urban Credit Cooperative Society (BUCCS) and National Building Construction Company (NBCC) Pvt. Ltd. (JV) was accepted (July 2006) with further inclusion (January 2007) of one more company viz. J.V. Kulkarni and Friends Associate after the acceptance of CA. MoU indicated that BUCCS had engaged two partners on payment basis in lieu of works to be executed<sup>28</sup>, instead of profit sharing arrangement indicating that JV was formed merely to procure the CA.

- In MBC project, the concessionaire considered the annual repair and renewal cost at two and 16 *per cent* of the project cost respectively as against one and six *per cent* considered by PWD. The traffic growth was considered at two *per cent* against the norm of five *per cent* and the toll discount rate was also adopted at higher side at 17.65 *per cent* as against the norm of 16 *per cent*. On recalculation by audit on the basis of the PWD norms, the concession period worked out to 14 years for 15 *per cent* IRR as against 19 years and eight months for 14.97 *per cent* IRR accepted by the department. The GoM stated that the reasons quoted by the concessionaire were acceptable as there was a parallel road. Reply itself is indicative that the project undertaken was not feasible for BOT and was against the Government policy.

#### **2.1.15.3 Project implementation**

- In MBC project, on local demand, the concessionaire installed 129 street lights in the Buldhana city portion costing ₹ 64.41 lakh beyond the

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<sup>28</sup> Works of 64 *per cent* of the project cost was to be executed by J.V. Kulkarni and Friends Associate and remaining 36 *per cent* by National Building Construction Company

scope of project. Though, the Chief Officer, Buldhana Municipal Council agreed (July 2006) to bear the cost of electric bills and maintenance, the same was not being maintained due to shortage of fund. During the site visit by audit (June 2014), the street lights were found non-functional, which was also confirmed by the PWD. As the cost was included in the cash flow, the same was being reimbursed by way of toll without benefitting the public. Further, as per the CA, the concessionaire was to provide site office (₹ 50.00 lakh), vehicles (₹ 15.00 lakh) and field laboratory equipped with modern furniture (₹ 10.00 lakh) required for BOT work. However, three buildings<sup>29</sup> costing ₹ 75.00 lakh were executed with the consent of the PWD. The GoM stated that the street lights were provided by the concessionaire at his own cost. Further, the site office was also built by the concessionaire for ₹ 65.00 lakh, however, the Government stated that any excess cost beyond this would not be paid to the concessionaire. Reply is not acceptable as the construction of office building at circuit house, community hall and dormitory for drivers was contradictory to the CA.

- In ACB project, even though provisions were made in the project for maintenance of the roads, it was not being properly maintained leading to accidents, as was revealed from representations made to the PWD by various stakeholders like Police department, public representative, private authorities in addition to the PWD's correspondence with concessionaires.

## **2.1.16 Other important issues**

### **2.1.16.1 Publicity of Tenders**

In all the nine four-lane test checked projects with estimated cost between ₹ 96 crore and ₹ 845 crore, adequate publicity was not given. Further, the prescribed time period of four months for sale of tenders was not followed. The GoM stated that the tender notice was published as per norms in National, State/district level newspapers for specified duration and also uploaded in PWD website. Reply is not convincing as the period for publicity and period for receipt of tender was not as prescribed. Further, there was no system of e-tendering for PPPs in the State.

### **2.1.16.2 Incomplete concession agreement**

After awarding a contract, a CA was required to be entered into with the successful bidder to be treated as a concessionaire. However, it was noticed that in three<sup>30</sup> projects, the CA was directly entered into with the SPV formed by the entrepreneur without appending the terms and conditions and schedules to be adhered to by the concessionaire. As such, the CA was incomplete and fallible. It could have legal implications in the event of default by the SPV.

### **2.1.16.3 Non-completion of punch list items**

The concessionaire was bound to complete the punch list items within a stipulated period *i.e.* within 60 days in case of 'P-Form' and 120 days in case of MCA contract and obtain final completion certificate failing which the EIC shall complete the works at the risk and cost of concessionaire. In seven<sup>31</sup> out

<sup>29</sup> Office building at circuit house, community hall and dormitory for drivers, for PWD purpose

<sup>30</sup> MWB, CKAM and SP

<sup>31</sup> MWB, CKAM, Kasheli bridge, Kopargaon-Ahmednagar, NNV, STBN and APK

of 13 test-checked projects, audit noticed that the final completion certificates were not issued after a lapse of periods ranging between four months and 90 months.

#### 2.1.16.4 Excess raising of loan

The financial bids submitted by the bidder indicate the debt-equity ratio on the basis of which the bidder would finance the project. Scrutiny of test-checked four-lane projects revealed that the debt-equity ratio quoted in financial bids in eight four lane projects was not observed while borrowing the loans from financial institutions as indicated in **Table 2.1.2**.

**Table 2.1.2: Excess loans sanctioned from financial institutions**

(₹ in crore)

Name of Project	Debt-equity ratio as per bid document	Project cost as per concession agreement	Bank loan		Debt portion (in per cent)
			Sanctioned	Released as on November 2014 (available only in MCA projects)	
MWB ('P' form)	70:30	339.76	322.50	--	95.00
Kasheli Bridge ('P' form)	75:25	227.63	225.00	--	99.00
CKAM ('P' form)	75:25	120.52	137.00	--	113.67
SP* ('P' form)	70:30	1220.00	1316.07	--	107.87
NNV* ('P' form)	70:30	123.17	90.00	--	73.07
STNB* (MCA)	70:30	114.10	133.00	133.00	116.56
JW*(MCA)	70:30	134.18	100.00	100.00	74.52
BPLS*(MCA)	70:30	216.95	191.03	172.46	88.05

Source : Data provided by PWD

Note: \* are projects involving VGF, where effective project cost after deducting VGF considered except in SP, where Government contribution is to be made in the fourth and fifth year.

The Government stated that for all PPP projects, the concessionaire/ lenders carry out their own assessment of projects and their valuation is more than that of the PWD. Further, though the concessionaire had taken additional debt, it would have no effect on the concession period and the interest on the additional debt had to be borne by the concessionaire itself. The reply is not acceptable as higher project cost worked out by the concessionaire allows concessionaire to raise higher quantum of funds and chances of funds being diverted to some other projects cannot be ruled out. Further, in case of default by the Concessionaire, the liability to repay the loan lies with the Government.

#### 2.1.16.5 Deviations from Model Concession Agreements

The GoM has brought out a CA ('P-Form') which did not contain some of the provisions of MCA resulting in inadequate provisions to monitor the progress and inspection of work on the project as discussed below:

- **Progress Reports:** 'P-Form' provided for submission of quarterly report on progress of construction to the Authority and EIC as against monthly report provided in the MCA. As such the frequency of monitoring was inadequate.
- **Inspection of work:** 'P-Form' did not provide for monthly inspection of project by the EIC as contained in MCA thereby the periodical reports on construction as per specifications were not being obtained from the EIC.

The possibilities of compromise on quality aspects due to inadequate provision in the agreement cannot be ruled out.

### **2.1.17 Conclusion and recommendations**

Short or medium term plan had not been formulated for effective implementation with clear demarcation of implementing agencies such as Public Works Department/Maharashtra State Road Development Corporation/Mumbai Metropolitan Region Development Authority for taking up PPP projects.

***The Government may prepare a short/medium term master plan for construction of roads and bridges in the entire State for taking up new PPP projects.***

In all the four-lane test checked projects publicity was not given in international newspapers and adequate time was not given for submission of tenders. Tender forms were not issued to prospective bidders in two projects. The minimum net-worth and experience criteria was relaxed at the time of tendering in Sion- Panvel project.

***The Government may assess and consider the option of introducing e-tendering and also reinvoke tenders in case of change in bidding criteria for probity and transparency in awarding of contracts.***

Non-acquisition of forest land was noticed in Manor-Wada-Bhiwandi Road project, while the scope of work was revised during tendering in two projects (Sion-Panvel and Alibag-Pen-Khopoli) with consequent revision in project costs and concession period, indicating inadequate feasibility study. Further, the component of project cost quoted by the bidder was not evaluated to determine its reasonableness.

***The Government may carry out intensive feasibility study for proper traffic census, determine the reasonableness of the components of the project cost and ensure availability of land before execution of projects.***

There were delays in implementation of five projects (Sion-Panvel, Nashik-Niphad-Vaijapur, Manor-Wada-Bhiwandi, Shirur-Tajband-Narshi-Biloli and Baramati-Phalton-Lonand-Shirwal). Quality control measures as well as monitoring of the projects were inadequate in five four lane projects (Sion-Panvel, Chinchoti-Kaman-Anjur Phata, Baramati-Phalton-Lonand-Shirwal, Manor-Wada-Bhiwandi and Shirur-Tajband-Narshi-Biloli). Provisional completion certificates in three projects (Chinchoti-Kaman-Anjur Phata, Shirur-Tajband-Narshi-Biloli and Kasheli bridge) were issued without ensuring achievement of milestones prescribed in the concession agreement.

***The Government may follow the provisions of the concession agreement regarding issue of completion certificates and maintain adequate monitoring and quality assurance systems for good quality road and ensure that provisional completion certificates are issued only after achieving the prescribed milestones of projects.***