

# Report of the Comptroller and Auditor General of India on

Implementation of Public Private Partnership Projects in National Highways Authority of India

For the year ended March 2013



Union Government (Commercial)

Ministry of Road Transport & Highways

No. 36 of 2014 (Performance Audit)

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### **Preface**

This Audit Report has been prepared in accordance with the Performance Audit Guidelines and the Regulations on Audit and Accounts, 2007 of the Comptroller and Auditor General of India.

The Government of India approved (January 2005) the National Highways Development Programme (NHDP) which envisaged development of 55,225 km (as on 31 March 2013) of roads at an estimated cost of ₹ 2,47,635 crore. The development of such roads was entrusted to National Highways Authority of India (NHAI) which was to execute this under seven phases. In Phase I and II of NHDP, projects were taken up for execution primarily under the Engineering, Procurement and Construction (EPC) mode. Under this mode, projects were entirely funded by the GoI / NHAI. With a view to further augmenting inflow of scarce budgetary resources and to encourage private sector participation, from Phase III onwards, GoI started awarding NHDP projects under the Public Private Partnership (PPP) mode.

Audit took up the performance audit of NHAI to examine implementation of 94 projects under Phases II, III, IV and V of NHDP, out of total 207 projects awarded (as on 31-3-2012) under PPP mode.

Audit wishes to acknowledge the co-operation received from NHAI and the Ministry of Road Transport & Highways in the conduct of audit.

## **Executive Summary**

 Ministry of Road Transport and Highways (MoRTH) had set a target for widening and up gradation of National Highways (NH) at 20 km per day. It was, however, noticed that NHAI's achievement during 2009-10 to 2012-13 ranged between 3.06 km and 17.81 km per day.

(Para 2.3)

• There was inconsistency in adopting carrying capacity/tollable traffic as yardstick for determining the Concession Period by National Highways Authority of India (NHAI). This resulted in fixing higher concession period and higher burden on road users by way of toll for the extended period. Users have to pay an additional toll of ₹28095.54 crore (NPV ₹3233.71 crore).

(Para 4.3.1)

• NHAI incurred ₹ 856.80 crore on account of change of scope in 23 projects, out of which ₹ 662.53 crore was on account of deficient Detailed Project Report (DPR)/Feasibility Report (FR).

(Para 5.9)

• NHAI could not start toll collection in six completed annuity projects due to delay in achieving of commercial operation date (COD). This resulted in forgoing toll collection of ₹ 259.47 crore. Further toll of ₹ 171.37 crore could not be collected due to delay in issue of toll notification (₹ 157.65 crore) and failure to commence toll collection after issue of toll notification (₹ 13.72 crore) for these projects.

(Para 6.1)

• Two projects were approved for 4-laning despite the fact that the minimum threshold traffic was not expected to be achieved in the next five to 12 years. Unwarranted 4- laning would result in extra cost of construction ₹ 1724.10 crore which was avoidable apart from increased user fee to be paid by road users which is higher by 66.67 per cent for 4-lane as compared to 2-lane.

(Para 4.2.1)

• The Total Project Cost (TPC) worked out by the concessionaires was higher as compared to TPC worked out by the Authority. In 25 projects, TPC worked out by the concessionaire was higher by 50 per cent. Such variance has serious risks for NHAI in the event of termination.

(Para 5.4)

The projects considered unviable on Build Operate and Transfer (BOT)-Toll either by DPR consultants/Authority/Public Private Partnership Appraisal Committee (PPPAC) or during bidding process were re-structured after making major changes in the initial project parameters to make them viable, but fresh RFQ were not invited in such cases, which vitiated the process of competitive bidding.

(Para 4.1.2)

• NHAI's decision to allow tolling on four partially completed stretches resulted in extra burden on the road users amounting to ₹ 161.67 crore.

(Para 5.7)

• Toll amount of ₹ 902.89 crore collected by the concessionaires in three 6-laning projects was not transferred to 'withheld amount account' though milestones were not achieved.

(Para 5. 8)

• In four projects, NHAI prematurely released VGF amounting to ₹ 769.53 crore in contravention of the provisions of MCA.

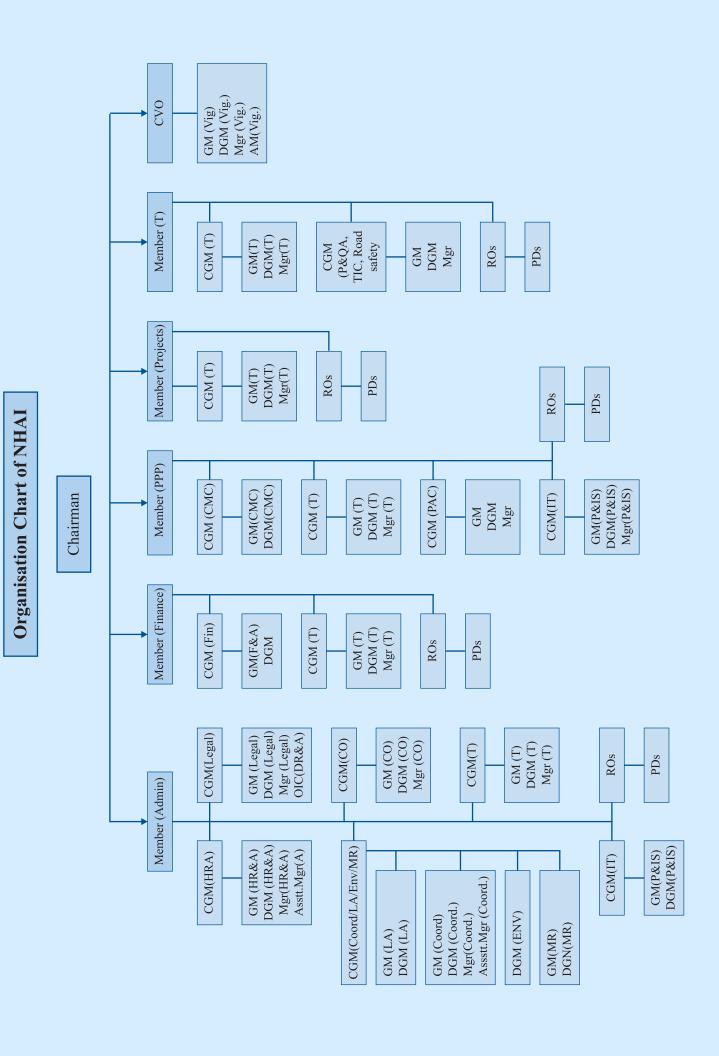
(Para 7.6)

• NHAI is managing its staff strength mostly with officials on deputation from other government departments and by appointing consultants. Department of Personnel & Training (DoPT), Ministry of Personnel, Public Grievances & Pensions, Government of India, directed MoRTH in November 2009, to ensure that within two years, the structure of NHAI be reformed to provide for its own independent cadre through direct recruitment and absorption of deputationists. However, as at the end of 31 March 2013, the ratio of persons on deputation to regular employees was 83:17.

(Para 7.2)

• MoRTH did not furnish records related to selection and prioritization of road stretches for up-gradation, therefore, Audit was unable to assess whether MoRTH selected road stretches in an objective, transparent and rational manner.

(Para 2.1)

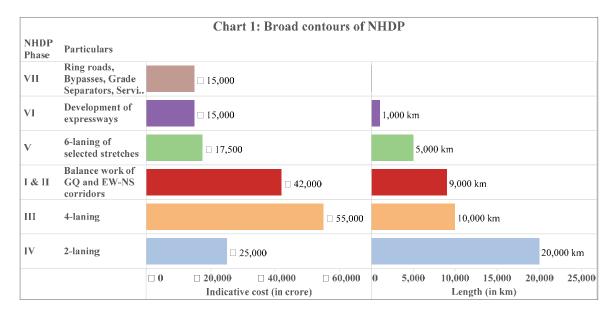


#### Introduction

1.1 India has a National Highways network of 65569 km which was 1.7 *per cent* of the total road network of the country, and it carried over 40 *per cent* of total traffic.

The role of developing, maintaining and managing National Highways in India has been entrusted to the National Highways Authority of India (NHAI) which was established in 1988 by an Act of Parliament, namely NHAI Act 1988, as a body corporate to discharge its functions on business principles. However, NHAI began its operations only in 1995 with the appointment of a full-time Chairman and Members. It is headed by a Chairman and comprises of five full-time members and four part time members appointed by Government of India (GoI).

NHAI is mandated to implement the National Highways Development Programme (NHDP) which is the amongst the world's largest road development programmes covering 55225 km (as on 31 March 2013). The Action Plan for NHDP involves a total investment of ₹ 2,20,000 crore on concessions/contracts to be awarded by 2012. The Committee on Infrastructure (CoI)¹ in its third meeting held in January 2005 approved the broad contours of NHDP and mandated that the programme as shown in Chart 1 below, be undertaken by 2012:



The Cabinet Committee on Infrastructure (CCI) under the Chairmanship of the Prime Minister was constituted on 6 July 2009. It substituted the Committee on Infrastructure which was set up in August 2004 under the Chairmanship of Prime Minister. The CCI approves and reviews policies and monitors implementation of all infrastructure programs and projects across infrastructure sectors. In January 2013 the Gol constituted the Cabinet Committee on Investment and CCI has been merged with CCEA (Cabinet Committee of Economic Affairs).

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#### 1.2 Funding for road projects:

NHDP projects are financed primarily from the following sources:

- cess levied on petrol and high speed diesel (Central Road Fund),
- funds received for externally aided projects,
- additional budgetary support,
- · market borrowings and
- plough back of revenue<sup>2</sup>

Financial management by NHAI is discussed in Chapter III of this report.

#### 1.3 Phases of NHDP:

The status of seven Phases of NHDP as on 31 March 2013 is detailed in Table 1, Chart 2A and 2B below:-

**TABLE 1: Status of NHDP projects** 

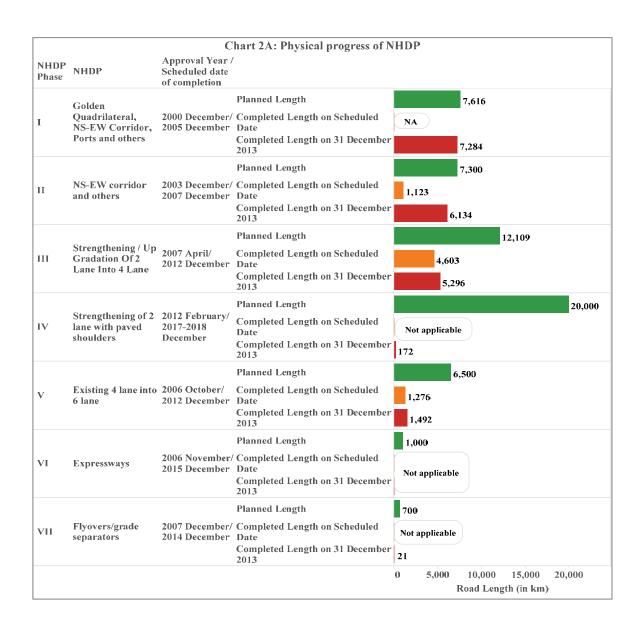
NHDP Phase Year of approval		Length (in km) /Scheduled completion date	Completed length in km (including partial completed) as on		Percentage completion as on		Total estimated cost (₹ in crore)	Expenditure till 31 March 2013 by NHAI & concessionaire
			Scheduled date	31 March 2013	Scheduled date	31 March 2013	(( 12 01010)	(₹ in crore)
Phase I / December 2000	Golden Quadrilateral (GQ), NorthSouth- East West (NS- EW) Corridor, Ports and others	7616 December 2005	Not Available	7284	Not Available	95.64 per cent	30,300	40979.83
Phase II / December 2003	NS-EW Corridor and others	7300 <sup>3</sup> December 2007	1123	6134	15.38 per cent	84.03 per cent	34,339	58633.84
Phase III / April 2007	Strengthening / Up Gradation Of 2-Lane into 4-Lane	12109 December 2012	4603	5296	38.01 per cent	43.74 per cent	33069(IIIA) +47557(IIIB) = 80,626	62111.72
Phase IV / February 2012	Strengthening of 2-lane with paved shoulders	20000 <sup>4</sup> December 2017-18	Not applicable	172	Not applicable	0.86 per cent	27800	3112.29
Phase V / October 2006	Existing 4-lane into 6-lane	6500 December 2012	1276	1492	19.63 per cent	22.95 per cent	41,210	20501.95

Plough back of revenue includes toll collection, shared revenue, negative grant etc. collected by NHAI and deposited into the Consolidated Fund of India against which an equivalent amount is to be released by GoI to NHAI for investing in its projects.

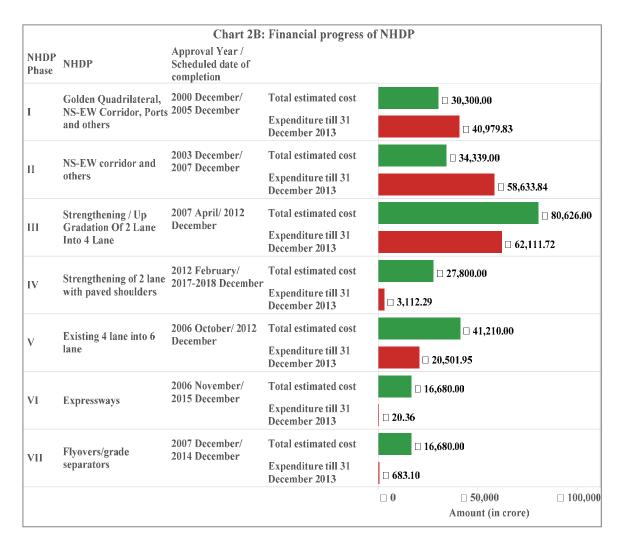
<sup>&</sup>lt;sup>3</sup> This includes 981 km of NS-EW Corridor undertaken in Phase-I.

 $<sup>^4</sup>$  Out of 20, 000 km NHAI is entrusted with only 13389 km.

NHDP Phase Year of approval	NHDP	Length (in km) /Scheduled completion date	Completed length in km (including partial completed) as on		Percentage completion as on		Total estimated cost (₹ in crore)	Expenditure till 31 March 2013 by NHAI & concessionaire
			Scheduled date	31 March 2013	Scheduled date	31 March 2013	(v in crore)	(₹ in crore)
Phase VI / November 2006	Expressways	1000 December 2015	Not applicable	NIL	Nil		16,680	20.36
Phase VII / December 2007	Flyovers/grade separators	700 December 2014	Not applicable	21	Not applicable	3.0 per cent	16680	683.10
Total		55225	20399				247635	186043.09 <sup>5</sup>



NHAI's share in project expenditure (Fixed Assets / CWIP as on 31 March 2013) is ₹1,06,440.23 crore.



In terms of percentage completion on the scheduled date under Phases II, III, IV & V covered in Audit ranged from 19.63 per cent (Phase V) to 38.01 per cent (Phase III). None of the above Phases (except Phase IV which is scheduled to be completed by 2017-18) of NHDP had been completed till the end of March, 2013 though the due dates of completion were already over. Further, 100 per cent completion of the road projects under Phases II, III & V had not been achieved even by the end of March 2013. Actual expenditure incurred against total approved cost was at 170.75 per cent, 77.04 per cent, 11.20 per cent and 49.75 per cent, respectively, of the estimated costs, in these four Phases.

#### 1.4 Mode of Execution of Projects

In Phases I & II of NHDP, projects were taken up for execution primarily under the Engineering, Procurement and Construction (EPC) mode. Under this mode, projects were entirely funded by the GoI / NHAI. With a view to further augmenting inflow of scarce budgetary resources and to encourage private sector participation, from Phase III onwards, GoI started awarding NHDP projects under the Public Private Partnership (PPP) mode, except one project viz. 6 laning of Bengaluru – Hosur, under Phase III.

#### 1.5 Public Private Partnership (PPP)

Under the PPP arrangement, two main modes of execution were followed by NHAI:

- Build Operate and Transfer (BOT) Toll basis.
- Build Operate and Transfer (BOT) Annuity basis.

In BOT–(Toll) the concessionaire (i.e. the private partner) is responsible to finance, construct, operate and maintain the road stretch entrusted to him. He is entitled to collect and retain the toll collected during the concession period. In case the estimated toll collection falls short of the project costs including return on investment, NHAI provides finance to meet the gap in the form of viability gap funding. In certain cases the concessionaires may offer premium/revenue sharing instead of getting VGF.

In case of BOT (Annuity) mode, responsibility for construction, operation, finance and maintenance rests with the concessionaire and the toll collection responsibility rests with the NHAI. All construction and annual maintenance costs are initially borne by the concessionaire and the same are fully reimbursed by NHAI by way of annuity payments determined at the time of bidding.

After the approval of CCEA / CCI of individual projects the process of bidding i.e. engaging a concessionaire commences which consists of different stages such as Expression of Interest (EOI)/Request for Qualification (RFQ), Request for Proposal (RFP) evaluated by the Evaluation Committee formed by NHAI and final award of the project to the successful bidder. After award, the bidders form a Special Purpose Vehicle (SPV) i.e. the concessionaire, who executes the work.

#### 1.6 Procedure for implementing PPP models:

The policy guidelines for formulation, appraisal and approval of PPP projects for Highways were notified by GoI vide OM No. 01 May 2005-PPP dated 12 January 2006. As per the policy, all projects were to be first offered on BOT-Toll basis failing which these were offered under BOT (Annuity). If both failed, they were to be taken up on EPC mode after specific approval of Cabinet Committee on Economic Affairs (CCEA).

Based on the recommendation of B.K.Chaturvedi Committee, GoI decided (November 2009) that for implementation of road projects all the three modes of delivery i.e. BOT (Toll), BOT (Annuity) and EPC were to be concurrently taken up rather than, sequentially, as earlier. Further, a road project, *prima facie*, not found suitable for BOT (Toll) could be implemented directly on BOT (Annuity) after approval of Inter Ministerial Group (IMG) chaired by Secretary, Ministry of Road Transport and Highways (MoRTH). However, before implementing a project on EPC basis, it was to be compulsorily tested for BOT (Annuity). In cases where there was no unanimity in IMG, the matter was to be placed before the Empowered Group of Ministers (EGoM).

NHAI's role in NHDP is that of an implementing agency of GoI and the former does not have the powers to approve and sanction road projects. PPP projects are appraised and approved by committees established for this purpose viz. Standing Finance Committee (SFC), Public Private Partnership Appraisal Committee (PPPAC) and CCEA/CCI depending on the investment/costs.

#### 1.7 Status of PPP Projects

In Phase I & II, a total of 356 projects were awarded, of which 56 were awarded under the PPP mode. From Phase III onwards, 170 out of 171 projects were awarded under the PPP mode. At the end of December 2012, in all the seven phases combined, a total of 226 projects were undertaken by NHAI under PPP mode. Of these projects, 178 were awarded on BOT (Toll) and 48 projects awarded on BOT (Annuity) basis.

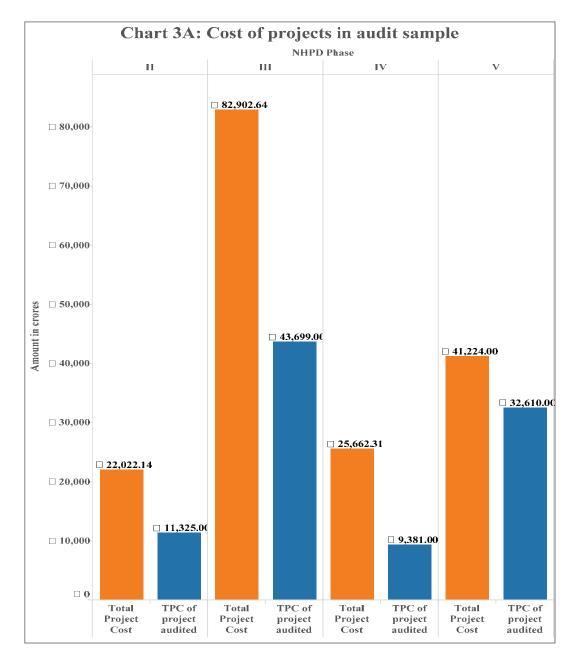
#### 1.8 Scope of the Audit

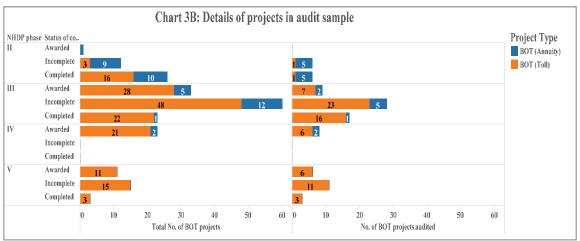
Audit covered 94 projects under Phases II, III, IV and V of NHDP constituting 45.41 *per cent* of total 207 BOT projects awarded (as on 31.3.2012). Of these 94 projects, 74 were awarded under BOT (Toll) and 20 under BOT (Annuity) model. Selection of projects was based on Total Project Cost (TPC), quantum of expenditure, stages of completion as well as geographical location. Cost of these 94 projects as per the concession agreements is ₹ 97016 crore which represents 56.47 *per cent* of the total project cost of ₹ 171811 crore for 207 projects. Table 2, Chart 3A and Chart 3B below give details thereof: -

**TABLE 2: Cost of projects in Audit sample** 

NHDP Phase	BOT (Toll)			BOT (Annuity)			Total	Total project Cost as per CA		
	Completed	Incomplete	Awarded	Total	Completed	Incomplete	Awarded	Total		₹ In crore
II	16 (1)	3 (1)	0	19 (2)	10 (5)	9 (5)	1 (0)	20 (10)	39 (12)	22022.14 (11325)
III	22 (16)	48 (23)	28 (7)	98 (48)	1 (1)	12 (5)	5 (2)	18 (8)	116 (54)	82902.64 (43699)
IV	0	0	21 (6)	21 (6)	0	0	2 (2)	2 (2)	23 (8)	25662.31 (9381)
V	3 (3)	15 (11)	11 (6)	29 (19)	0	0	0	0	29 (20)	41224.00 (32610)
Total	41 (20)	66 (35)	60 (19)	167 (74)	11 (6)	21 (10)	8 (4)	40 (20)	207 (94)	171811.09 (97016)
TPC (in crore)	8541	41616	28030	78187	2338	13509	2982	18829		97016
	Per cent Selected with respect to number of projects including annuity			27.7	47.9	24.4	100			
	Per cent Selected with respect to TPC of projects including annuity.			11.21	56.82	31.97	100			

Note: Figures in bracket indicates the projects selected for Audit





#### 1.9 Audit objectives

Objectives of the Audit were to assess whether:

- Project identification / prioritization was done in a transparent/effective manner; whether defined criteria existed in this regard based on factors like traffic census, connectivity to important places/towns/commercial centres, strategic importance, harmonious development of different parts of the country and so on.
- Financial Management of funds was sound, mobilisation of resources was efficient and the available funds were utilised effectively and economy was kept in view while borrowing funds.
- Projections made in DPR/ Feasibility Report were sound and borne out by subsequent events; DPR/ Feasibility Report were prepared considering all the present as well as future aspects of the project and the TPC was arrived prudently.
- Bid evaluation procedures were well established and projects awarded to concessionaires according to competitive procedures, equitably and in public interest. Criteria for determining concession period were based on a sound financial model and consistent for all projects with no avoidable extra burden on users.
- Revenue management system in toll collection was effective; share of Toll revenue whenever due to GoI was being regularly received and internal control of NHAI was efficient to check short realisation of revenue, if any.
- Suitable mechanism for monitoring of projects was established at MoRTH and NHAI during execution and O&M stage; the output was consistent with the goals set under NHDP and value for money was realised from the projects. Projects were completed within estimated cost, desired timeframe and in cases of any delay/default; appropriate steps had been considered/taken as per MCA/CA.

#### 1.10 Audit methodology and Criteria

Sample audit of a few Project Implementation Units (PIUs) of NHAI was conducted during November 2011 to January 2012. Based on the results of the test check, the Audit Plan, criteria for selection of projects, design matrix, etc. were designed. An Entry Conference with NHAI was held on 1 August 2012 and subsequently with MoRTH on 5 December 2012 wherein the audit objectives envisaged to be achieved through the audit were discussed. Audit teams conducted the field Audit during the period August 2012 to September 2013.

Audit criteria were derived from the following:

- Adherence to guidelines/procedures set forth for identifying private sector partners including review of Detailed Project Report (DPR)/Feasibility Reports, Sample surveys/Statistical Analysis Reports etc.
- Review of records of various phases of NHDP, selection of stretches under respective phases, appraisal of projects at various levels viz. NHAI/MoRTH, PPPAC, EoGM/GOM/CCEA/CCI etc.
- Terms and conditions of Model concession agreement, State Support Agreement, Escrow Agreement, Substitution Agreement, Agreement with Independent Engineer and Consultant.
- Traffic and Revenue assessment and projections.
- Departmental, technical and financial estimates prepared as per DPRs
- Project Management Control System prepared by the Independent Consultant (IC) for monitoring implementation, operation and maintenance of the project.
- System of evaluation of bids
- Work Plans of NHDP and Budget Provision for release of funds to MoRTH/ NHAI
- Operation and Maintenance (O&M) Manual for project implementation.
- Financial Management System of NHAI.

The draft Performance Audit Report prepared after completion of audit was issued on 18 July 2014 to MoRTH and NHAI for confirmation of facts and figures contained therein and also to seek their reply on the Report. Subsequently, the Report was discussed with the MoRTH and NHAI in an 'Exit Conference' held on 22 July 2014.

#### 1.11 Scope Limitation

During the Audit at MoRTH, records/files in respect of critical areas were either not furnished or only partially furnished. In the absence of these records, certain aspects could either not be reviewed at all or were reviewed only to a limited extent. The details of the records not provided or partially provided to Audit are indicated in Table 3 below:

TABLE 3-Records not provided/partially provided

Sl. No.	Records/files/information sought from MoRTH	Status
1	Basis of selection of stretches taken up for up-gradation and norms/criteria adopted for identification/prioritization of stretches under NHDP Phases II to V	No records were furnished.
2	Approval of NHDP Phases II, III, IV & V	Only one file related to approval of phase IV (15000 km.) was furnished.
3	Work plans as well as financial plans of NHDP for the last five years	Work plans for two years 2011-12 & 2012-13 only were furnished.
4	Project specific files	Only 10 out of 31 requisitioned files were furnished; however, these did not contain complete information.
5	Quarterly reports of PPP PRU (Project review unit) for the last five years	No records were furnished.
6	Justification for fixing the VGF limit of 40 per cent of TPC for VGF in BOT projects.	No records were furnished.

The issue of production of records was taken up repeatedly with MoRTH. However, neither was any communication received from MoRTH nor the requisite records were made available. Efforts made by Audit to obtain records from MoRTH are detailed below:

Sl. No.	Details of Requisitions /Meetings	Dated
1	Requisitions issued by the Audit team to MoRTH	07 Jan 2013 to 13 March 2013
2	Reminder for providing records to MoRTH	18 January 2013
3	Meeting with representatives of MoRTH for providing records	29 January, 2013
4	Reminder Letter to Joint Secretary (Highways), MoRTH for providing records	23 January 2013
5	Audit observations issued to MoRTH	12 February 2013to 14 March 2013
6	Meeting with Joint Secretary, MoRTH for providing records.	15 February 2013
7	Letter to MoRTH regarding status of records received with a request to furnish wanting records	18 and 20 February 2013
8	Reminder letter to Joint Secretary (Highways), MoRTH	27 February 2013
9	D.O. letter to the Secretary (Highways), MoRTH from the Deputy CAG (Commercial)	9 April 2013

#### Chapter - 2

# **Planning**

#### 2.1 Selection of road stretches

The main criteria used for identification / prioritisation of road stretches under phases I and II was the development of the Golden Quadrilateral and the North-South, East-West corridor, respectively. The criteria used for identification / prioritization of road stretches under other phases (III, IV and V) were requisitioned in order to derive an assurance that selection of road stretches for implementation under NHDP was made objectively. However, no information / records regarding this aspect were furnished even after the issue was taken up at the level of Joint Secretary / Secretary, MoRTH. MoRTH replied (September 2014) that the documentation relating to the selection of the specific road stretches for up-gradation were not readily available.

**2.1.1** Audit made an attempt to analyse selection of stretches on the basis of traffic data available on the web-site of MoRTH. 16 stretches<sup>6</sup> in nine states having comparatively higher traffic volume were ignored/not given priority for up-gradation. On seeking comments on the issue, MoRTH replied (September 2014) that some stretches were subsequently selected for up- gradation and a few were not entrusted by MoRTH to NHAI.

CCI had initially approved 5000 km under Phase IV A in July 2008 covering 42 stretches. Subsequently, MoRTH sought (vide Cabinet Note dated 20 January 2012) approval of CCI to a unified scheme for up-gradation of less developed stretches for a length of 20,000 km under NHDP Phase-IV. Para 3.1 of the said Note submitted by MoRTH to CCI stated that subsuming the scheme already approved by the Cabinet for 5000 km, approval was sought to the list of 8525 km of roads as given in Annexure –III to the Note and to empower the Minister, MoRTH to carry out substitution in the aforesaid lists, as may be necessary from time to time. The CCI approved (February 2012) the above proposal.

**2.1.2** Not only was Audit unable to verify the basis for selection of stretches, road stretches once approved by the CCI under NHDP were substituted without justification with other road stretches while taking approval of CCI subsequently. CCI initially

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Madhya Pradesh: (i) NH-69 (Km 14.200 to 107.200) Andhra Pradesh: (ii) NH-16, (iii) NH-18, (iv) NH-43 Maharashtra: (v) NH-204 (Km 92.200 to 107.200), Haryana: (vi) NH-65 (Km 0.000 to 48.600), Odisha: (vii) NH-217 (Km 17.900 to 30.000), Uttaranchal: (viii) NH-123 (Km 1.950 to 86.000), (ix) NH-121 (Km 7.325 to 140.650) and (x) NH-119 (Km 135.150 to km 241.450), West Bengal: (xi) NH-35, (xii) NH-55, (xiii) NH-60 and (xiv) NH-117, Meghalaya: (xv) NH-40, Nagaland: (xvi) NH-39.

approved 42 road stretches under NHDP Phase IV A in July 2008. Subsequently, MoRTH sought approval in January 2012 for unified scheme of Phase IV (including the earlier approved Phase IV A) which was approved by CCI in February 2012. It was seen that 26 of 42 stretches approved earlier under Phase IV A were substituted with new projects. MoRTH neither clarified to Audit how the priority of stretches decided earlier was changed later nor the reasons for such substitution were found on record. MoRTH replied (September 2014) that the road stretches were selected / identified based on the availability of land, fulfilment of pre-construction activities, traffic volume and non-existence of any hindrance/ local impediments. However, MoRTH has not provided any reply on the substitution of 26 projects during approval of phase IV as a whole.

Further, in the 'Exit Conference' held on 22 July 2014 with the MoRTH and NHAI, Additional Secretary and Financial Advisor, MoRTH stated that the documentation relating to the selection of the specific road stretches for up-gradation may not be available, though these should have been maintained.

Thus in the absence of written criteria / records, Audit was unable to draw an assurance whether an objective, transparent and rational procedure was followed for identification, selection and prioritization of road stretches taken up for implementation under PPP.

#### 2.2 Approval of NHDP Phases

MoRTH did not provide records relating to approval of NHDP Phases II, III, IV-A (approved in 2008 for 5000 km) and V. Only files relating to approval of Phase IV as a whole for 20,000 km (approved in 2012) were produced. MoRTH in its reply (September 2014) had admitted that being old records these were not readily available.

2.2.1 NHDP Phase IV: NHDP Phase IV A for 5000 km was approved by CCI in July 2008 at an estimated cost of ₹ 6950 crore (at price levels on 01-01-2006). In view of 'in principle' approval for 20,000 km given by CCI under Phase IV, MoRTH identified the balance 15,000 km of National Highways for up-gradation under NHDP Phase-IV and initiated preparation of feasibility reports for these stretches. Considering that compartmentalising 20,000 km into 4 different sub-phases would have made the entire project approval and implementation process very cumbersome and complicated, MoRTH submitted (20 January 2012) its proposal to CCI for approval of a unified programme for 20,000 km under Phase IV. CCI approved the proposal in February 2012 i.e. after four years from date of approval of Phase IVA.

In the meantime, the estimated cost of  $\ref{thmu}$  27800 crore (including public participation to the extent of  $\ref{thmu}$  9368 crore) of Phase IV as a whole (at 2006 prices) increased to  $\ref{thmu}$  78500 crore, at 2009 prices, (including public participation to the extent of  $\ref{thmu}$  27660 crore) as worked out by the Finance Wing of MoRTH.

Specific reasons for delay in approval could not be examined in Audit in the absence of relevant records at MoRTH. However, delay of more than seven years i.e. 2006 to 2012 in approval of NHDP Phase IV highlighted deficiencies in planning and coordination of MoRTH/NHAI which resulted in increased cost of construction and deferment of social benefits along with increased burden on government exchequer by way of higher cost of public participation than estimated under PPP. The actual cost of completion of the Phase IV would be known only after completion of the entire Phase IV.

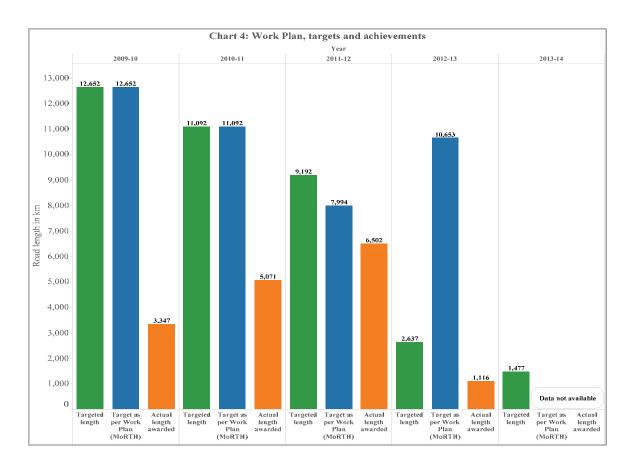
NHAI stated (August 2013) that it was only an implementing agency and out of 20,000 km under NHDP Phase IV, it had been entrusted with only 13,389 km. Further, MoRTH accepted (September 2014) the audit observation.

#### 2.3 Work Plans, Targets and achievements.

GOI constituted a committee (August 2009) under the Chairmanship of Shri B.K.Chaturvedi, Member, Planning Commission comprising four other members, to resolve procedural impediments to NHDP as well as 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 (27 August 2009) suggested a work plan for 2009-10 to 2013-14 which recommended that NHAI should award at least 21,000 km over the first three years so as to achieve the objective of constructing 7000 km per year (equal to 20 km per day). This work plan was approved by MoRTH in November 2009 with the proviso that the financing plan for 2010-11 onward would be considered by the Empowered Group of Ministers (EGoM) for further action, including such changes to the work plan as may become necessary. Accordingly, MoRTH approved revised work plan for 2011-12 and 2012-13 in July 2011. The targeted length to be awarded and actual length awarded during the period (after 2009) is shown in Table 4 and Chart 4 below:

TABLE 4- Length of roads awarded after 2009

SI. No	Year	Targeted length of NHs in km as per Work Plan recommended by B.K.Chaturvedi Committee	Revised Work Plan as adopted by MoRT&H (in km)	Actual length of NHs awarded (in km)	Shortfall (in per cent) (d-e)/d X 100	Per day achievement of NHs (in km)
(a)	(b)	(c)	(d)	(e)	<b>(f)</b>	(g)
1	2009-10	12652	12652	3347.45	73.55	9.17
2	2010-11	11092	11092	5071.38	54.28	13.89
3	2011-12	9192	7994	6502.22	18.66	17.81
4	2012-13	2637	10653	1115.76	89.53	3.06
5	2013-14	1477	0			
	TOTAL	37050	42391	16036.81		



MoRTH did not achieve the target of widening and up gradation of national highways @ 20 km per day during 2009-10 to 2012-13. Achievement ranged between 3.06 km and 17.81 km per day. The reasons for delay in achievement of target related to land the acquisition, delay in obtaining required approvals from concerned Ministries/Departments/local bodies like environment/forest clearances, ROBs/RUBs, utility shifting etc. These have also been separately discussed in detail in Chapter-5. MoRTH in its reply (September 2014) stated that the target of up-gradation of 20 km per day was an aspirational goal and was not based on cogent study of stretches ready for award. Further, it was added that unless the mode of award is independent of policy constraints, it would be difficult to achieve the ambitious targets.

In this regard, it is stated that the target of constructing 20 km of roads per day was set by the Ministry and same was also incorporated in the Cabinet Note dated September, 2009 for the revised strategy for implementation of NHDP. Further, 20 km per day was also used as a benchmark by B.K. Chaturvedi Committee report while devising the Work Plan for Implementation of NHDP.

#### 2.4 Corporate / Strategic Plan of NHAI

Till 2009, NHAI did not have a Corporate or Strategic plan for systematic implementation of NHDP. Though NHAI did draw up a corporate plan in 2009; the same did not include any strategy, procedures or guidelines for timely implementation of highway projects.

Corporate Plan drafted by NHAI dealt mainly with restructuring the administrative set up of NHAI by creation of Regional Offices and decentralisation of powers. It did not include any guideline or roadmap to ensure timely and efficient execution of projects. In spite of delays at every stage of award and implementation, the plan did not highlight any effective measures to synchronise the stage-wise activities related to either NHDP or PPP programme.

NHAI in their reply (August 2013) stated that M/s PwC, a consultancy firm, was selected for preparation of the Corporate Plan. The final report submitted by PwC on NHAI Corporate Plan was under examination by a Committee headed by Member/Finance. MoRTH replied (September 2014) that Corporate Plan addresses the issues relating to setting up of ROs, dedicated LA units, decentralisation of power, e-procurement etc.

In this regard it is stated that review of the Corporate Plan drafted by NHAI shows that it does not provide specific guidelines for execution of projects including setting up of targets, selection of road stretches, stage wise planning of activities etc. Thus, the reply of MoRTH is not tenable and there is a need for NHAI to revise the Corporate Plan to bring about an increased emphasis on timely and efficient execution of road projects.

Weaknesses in the planning and monitoring of projects were also pointed out in the 2008 Performance Audit on PPP (C&AG's Report No. 16 of 2008). Audit had recommended strengthening the planning machinery to monitor and take corrective action for timely execution of projects; however, this has not been acted upon in right earnest.

**Recommendation 1**: Transparent objectives and criteria need to be framed while identifying and selecting the road stretches for up gradation.

**Recommendation 2**: Timelines for approval of phases of NHDP/approval of projects need to be formulated and appropriate monitoring mechanism devised with identified responsibility centres and timelines.

#### Chapter - 3

# **Financial Management**

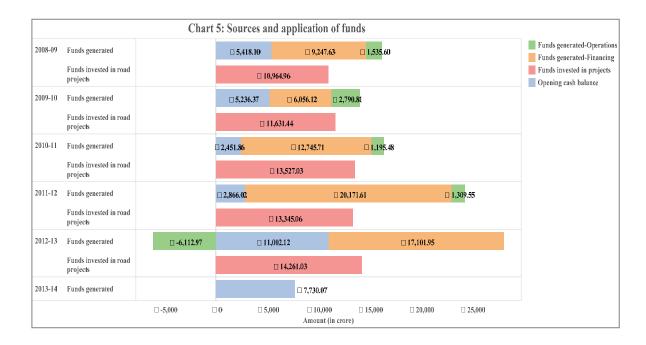
**3.1** A review of the funds received from all sources and application thereof revealed that at the end of each financial year, NHAI was left with substantial unspent funds. Details for the last five years are in Table 5 and Chart 5 below.

TABLE 5 - Sources and applications of funds

(₹ in crore)

Year	Opening cash and bank balances	Funds generated from operations	Funds generated from financing activities			Funds invested in road projects etc.	Closing cash and bank balances
			Borrowings	Other than borrowings	Total funds generated		
2008-09	5418.10	1535.60	2304.01	6943.62	9247.63	10964.96	5236.37
2009-10	5236.37	2790.81	1550.64	4505.48	6056.12	11631.44	2451.86
2010-11	2451.86	1195.48	2465.83	10279.88	12745.71	13527.03	2866.01
2011-12	2866.01	1309.55	12511.52	7660.09	20171.61	13345.06	11002.11
2012-13	11002.11	(-) 6112.97*	2902.06	14199.89	17101.95*	14261.03	7730.06

<sup>\*</sup> Includes ₹ 6183.56 crore payable to Government for the period prior to 1 April 2010 on account of toll and negative grant etc. transferred to Capital account during the year 2012-13.



The fact that the NHAI was having large amounts of unspent money at the end of each financial year indicated its inability to invest the same efficiently in development of national highways. It also highlights the need for improving assessment of requirement as well as synchronisation of borrowings from the market with the requirement. Since NHAI has been issuing bonds which carry an interest rate of about eight *per cent*, such improvement will also avoid the unnecessary burden of payment of interest on borrowed funds.

#### 3.2 Financing Plan:

To achieve the targeted length as per the work plan, a financing plan (FP) for National Highways for the years 2009-10 to 2030-31 taking into account the projected sources and application of funds was prepared by the B.K.Chaturvedi Committee and approved by GoI in 2009. The portion of Financing Plan for the last five years ending 2012-13 is in Table 6 below:

**TABLE 6- Financing Plan 2008-13** 

(₹ in crore)

Year	Projected Construction expenditure as per FP based on B. K. Chaturvedi Committee	Percentage of actual work done/ awarded with reference to projected targets (refer Table 4 in Chapter II)	Actual project construction expenditure	Borrowing as per FP recommended by B. K. Chaturvedi committee	Actual borrowing	Percentage of actual borrowing to proposed borrowing
2008-09	-	-	-	1631	2304.01	141.26
2009-10	13,423.00	26.46	11529.88	5336	1550.64	29.06
2010-11	16,419.00	45.72	13618.53	7455	2465.83	33.08
2011-12	15,585.00	81.34	13280.01	9155	12511.52	136.66
2012-13	23,222.00	10.47	13996.28	21922	2902.07	13.24
Total	68,649.00		52424.70	45499	20703.18	45.50

NHAI did not spend the funds available as projected in the B.K Chaturvedi Committee Report. The length of roads awarded by NHAI was only 16036.81 km (refer Table 4 in Chapter II) as against 42391 km projected. Despite this, NHAI continuously resorted to borrowings, leaving it with surplus cash balance.

Reasons for non-achievement of targets (discussed separately in Chapter V) were delay in land acquisition, delay in obtaining required approvals from the concerned Ministries/ Departments/ local bodies like environment / forest clearances, ROBs/RUBs, utility shifting etc.

Figures of borrowings projected by B.K. Chaturvedi Committee and the amount actually borrowed by NHAI thereagainst, given in Table 6 above, showed a mismatch that ranged between (-) 13.24 per cent and (+) 41.26 per cent. In the absence of any work plan during 2008-09 and actual work done thereagainst, Audit was unable to comment on reasons for higher borrowings by 41.26 per cent. Further, despite shortfall by 18.66 per cent (refer Table 4 in Chapter II) in achievement of targeted length during 2011-12, the actual borrowing against approved borrowing was higher by 36.66 per cent. This was due to raising funds of ₹10,000 crore during the year through Tax Free Bonds under Section 10(15) (iv) (h) of the Income Tax (IT) Act. It was also noticed that at the end of 31 March 2012, out of total surplus fund of ₹11002.11 crore, an amount of ₹9928.31 crore was parked in fixed deposits with banks by NHAI. Further, despite availability of such a huge fund as well as shortfall of 89.53 per cent of work done/awarded, NHAI raised further funds of ₹2902.06 crore during 2012-13 through issue of bonds u/s 54 EC of the IT Act. At the end of 31 March 2013, an amount of ₹5933.59 crore was retained by NHAI in fixed deposits.

Audit is of the view that Government lost the opportunity to earn tax revenue to the extent of ₹ 135.87 crore considering Corporate Tax rate of 32.45 percent, on the surplus monies invested in fixed deposits at the rate of 9.85 *per cent* per annum out of funds borrowed through tax free bonds. NHAI had also paid ₹ 113.56 crore to the lead managers towards brokerage charges on the bond issue of ₹ 10,000 crore raised during 2011-12.

There was need for a critical review of funds management by NHAI, by objectively linking the raising of funds with the progress of work and implementation of road projects.

The issue relating to huge cash balances at NHAI was discussed with the Secretary, MoRTH in the Exit Conference (July 2014) wherein the Management stated that NHAI follows a probabilistic model for determining the requirement of funds. During the Exit Conference the Secretary, MoRTH directed NHAI to base their financial plan on project wise analysis instead of on a simple statistical exercise. MoRTH in their reply of September 2014 have stated that the directions have been noted for taking necessary action at the time of finalising the Revised Budget of NHAI for 2014-15 and Budget Estimate 2015-16.

#### 3.3 Accounting system in NHAI

NHAI's accounts are prepared neither fully on cash basis nor on accrual basis and as such its financial statements do not completely adhere to the Generally Accepted Accounting Principles (GAAP) and the Accounting Standards issued by the Institute of Chartered Accountants of India (ICAI). NHAI has certain characteristics of a government department as also that of a Public Sector Enterprise as is apparent from provisions of the NHAI Act, composition of its Board of Directors, delegation of powers, rules of business, etc. As per section 10 of the NHAI Act, the NHAI is to act on business principles.

Major deficiencies in the accounts of NHAI and comments on the Financial Statements for the year 2012-13 as pointed out by Audit are as follows:

- 1. NHAI has not capitalized any road project expenditure since it became operational in 1995 which is not in consonance with Accounting Standard-6 'Depreciation Accounting' as well as approved accounting format. At the end of 31 March 2013, an expenditure of ₹ 69280.44 crore was incurred by NHAI on completed road projects (218 EPC & 20 BOT annuity projects). These roads have already been put to use by the general public and toll is being collected on 224 of these stretches. However, it was seen in audit that in contravention of Accounting Standard-6, these were recorded in the balance sheet under the head 'expenditure on completed projects awaiting capitalisation / transfer' on which no depreciation was charged. The assets developed by NHAI have a defined life over which period they generate revenue by way of toll. There is a diminution in the value of the assets due to use and efflux of time and at the end of the period, the stretch of National Highway needs to be upgraded with fresh investments of funds. The depreciation as per prescribed rate of 5 per cent p.a., as per the NHAI policy for the year 2012-13 alone works out to ₹3116.32 crore and the same for the previous four years has been worked out at ₹ 6954.04 crore. In the absence of year wise details of project completed, the exact amount charged is not workable due to which audit is unable to quantify the amount by which the assets are overstated.
- 2. Interest on funds borrowed for the road projects can be capitalized till such time as the assets are not completed and put to use. After completion, the interest and other expenditure is to be charged on revenue basis. However, it was seen in Audit that borrowing cost of ₹ 865.64 crore, surplus/deficit in the profit and loss account of ₹ 106.07 crore (deficit) and interest earned of ₹ 124.44 crore on investment in SPV (subsidiary companies), etc. have been appropriated to completed projects.
- 3. NHAI is required to prepare its annual report based on an approved format, giving a full account of its activities during the previous financial year. Further, NHAI rules provide for preparation of the profit and loss account and the balance sheet and such subsidiary accounts as may be prescribed in consultation with the C&AG. In order to provide information of activities to the Parliament, Ministry, investors and the interested public, it is necessary to prepare the Accounts / Financial Statements on the basis of GAAP. During accounts audit in 2012-13, it was seen that NHAI is not following the approved format of Annual statement of Accounts in true spirit. Expenditure and Income (other than establishment expenditure) are routed directly through balance sheet instead of through profit and loss account, thus deviating from the approved format, and therefore the Profit and Loss Account/Financial Statements does not disclose a true and fair view. Further, although the approved format for the balance sheet indicates only one head for ongoing projects i.e. 'Capital Work in Progress' under the fixed assets,

- NHAI has created another head 'Expenditure on completed projects awaiting transfer/ capitalisation' which is not in consonance with the approved format.
- 4. Investment in two subsidiary companies, viz. M/s Moradabad Toll Road Company Limited and M/s Ahmedabad Vadodara Expressway Company Limited, of ₹ 345.21 crore have been shown in the Annual Reports at cost instead of lower of cost and fair value.
- 5. Interest of ₹ 5894.66 crore on borrowed funds and interest earned of ₹ 5419.32 crore on unutilized borrowed funds have not been allocated to a particular project as per the provisions of Accounting Standard-16 'Borrowing Cost' and have merely been adjusted in fixed assets.
- 6. It was seen during audit that expenditure of ₹ 4493.96 crore incurred on NHs developed by NHAI from public funds and subsequently transferred to eleven concessionaires for up-gradation under BOT are still being shown as fixed assets in the NHAI books.
- 7. The amount of debt given to concessionaires by commercial banks is secured under the provisions of termination clause of concession agreements as per the guidelines of RBI. However, no contingent liabilities for the same were shown in the Annual Reports.
- 8. NHAI disclosed in the Notes on Account that Accounting Standards issued by ICAI (except for AS-15 'Employee Benefits', AS-17 'Segment Reporting' and AS-21 'Consolidated Financial Statements') have generally been followed, whereas, it was seen during audit that NHAI has deviated from the provisions of Accounting Standards and guidelines issued by ICAI.
- 9. Internal Audit of NHAI does not provide any formal assurance regarding the adequacy and effectiveness of internal control over financial reporting.
- 10. The system of obtaining balance confirmation certificate does not exist in NHAI.

**Recommendation 3**: NHAI may develop an effective financial management system so that inflow of funds can be synchronised with the requirement and avoid surplus/idle funds.

#### Chapter - 4

# **Award of Project and the Concession Period**

#### 4.1 Award of Project

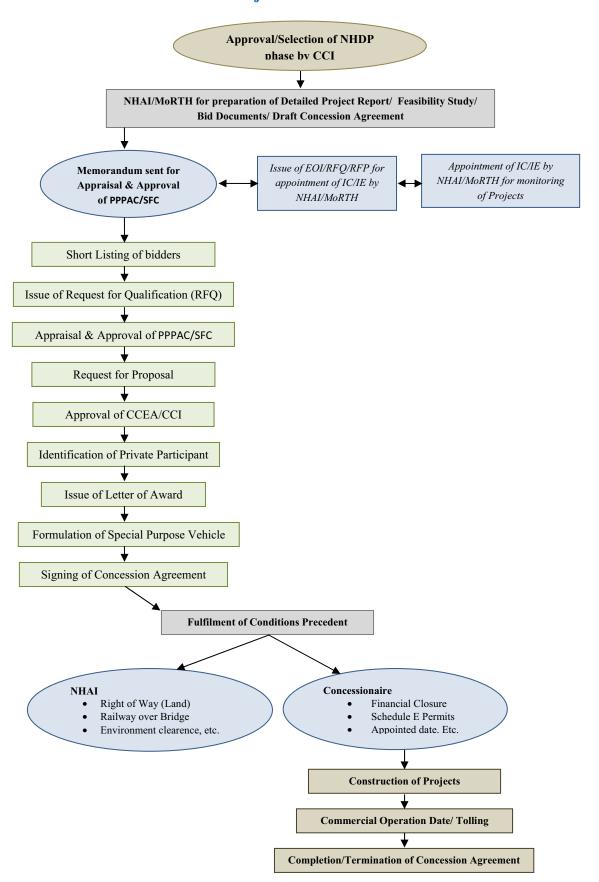
#### 4.1.1 Procedure adopted for award of projects under NHDP

MoRTH first identifies the road stretches eligible for up-gradation/widening and then proposes their inclusion under a phase of NHDP. The proposal for approval of a phase is then submitted to the Cabinet Committee on Infrastructure (CCI). On approval by the CCI, MoRTH transfers the stretches under the phase so approved to NHAI for implementation.

NHAI in turn, engages a DPR/feasibility consultant for each project (having one or more road stretches) to determine project features, preliminary design and estimated cost of the project. On receipt of the feasibility report/draft DPR, NHAI appoints financial & legal consultants for project structuring, preparation of PPPAC documents including Draft concession agreement (DCA), which is to be based on the Model concession agreement (MCA) and schedules formulated by the Planning Commission. The complete proposal is submitted to the PPPAC through MoRTH, for its appraisal /approval. NHAI carries out the required changes as suggested by PPPAC, if any, and the modified proposal is resubmitted to PPPAC for approval.

On approval by PPPAC the individual project is submitted to CCEA/CCI for its final approval. Thereafter, the process of engaging a concessionaire commences which consists of different stages such as Expression of Interest (EoI)/Request for Qualification (RFQ), Request for Proposal (RFP) evaluated by the Evaluation Committee's formed by NHAI and final award of the project to the successful bidder. After award, the bidders form a Special Purpose Vehicle (SPV) i.e. the concessionaire, who executes the work. Flow chart on next page describes the procedure for award of projects.

# Flow chart of establishment of Public Private Partnership (PPP) Projects in NHAI



#### 4.1.2 Restructuring of unviable projects and non transparent award of projects

As an implementation agency for development of highways, major work of NHAI in BOT projects comprises preparation of feasibility reports/DPRs, selection of the concessionaire, Independent Consultants/Engineers (IC/IE) and Safety Consultants (SC), making available land and monitoring the execution of the project.

PPPAC guidelines for formulation, appraisal, approval of PPP projects provide (Para 9.5 of the guidelines) that the PPPAC will either recommend the proposal (with or without modification) or request the Administrative Ministry to make necessary changes for further consideration of PPPAC. Instances were noticed in Audit where projects considered unviable on BOT-Toll either by DPR consultants/NHAI/PPPAC were restructured after making major changes in the initial project parameters to make them viable. However, no fresh RFQs were invited in such cases. There were also cases (namely Jaipur-Tonk-Deoli, MP/MH border-Nagpur including construction of Kamptee-Kanhan and Nagpur Bypass and Kanpur-Kabrai) where NHAI unilaterally changed the scope of projects which were awarded without PPPAC approval. Cases of change of scope by deletion of major items of work at concession agreement stage and allowing undue post bid benefits to concessionaires were also seen. These projects are discussed below:

#### 4.1.2.1 Jaipur-Tonk-Deoli

CCEA approved (December 2008) the project for 6-laning of 79.80 km of Jaipur-Tonk Section and 4-laning of 66.5 km of Tonk-Deoli section of NH 12 at an estimated cost of ₹ 1183.60 crore without any VGF with a concession period of 25 years. The provisional completion certificate of the project was issued on 27 September 2013.

Due to inadequate response from the bidders initially, NHAI restructured the project from 6/4- lane to 4/2-lane at an estimated cost of ₹ 792.06 crore. Audit noticed that despite major change in the scope of work as well as cost, NHAI on its own restructured the project as 4-laning of the entire stretch with a grant of ₹ 306 crore (38.63 *per cent*). Fresh approval of PPPAC/CCEA was not obtained.

NHAI stated (August 2013) that since the cost of the project was reduced and not increased, no fresh approval of PPPAC/CCEA was required.

The contention of NHAI was not correct, as the earlier approved cost of ₹ 1183.60 crore was for 6/4-laning project, whereas the reduced cost of ₹ 792 crore was for 4-laning only. Hence, the cost reduction was on account of reduction in the scope of work and was hence not comparable with the earlier cost of the project. The project approved at earlier cost was without any VGF, whereas the project in question has been awarded at a VGF of ₹ 306 crore. Further, the guidelines approved by the CCI (October 2005) for appraisal and approval of PPP projects clearly provided that restructuring of projects will be taken up by the Administrative Ministry only on the recommendation of the PPPAC. As such,

award of work at a VGF of ₹ 306 crore without PPPAC/CCEA approval was beyond the powers of NHAI.

While discussing the issue in the 'Exit Conference' held with MoRTH and NHAI on 22 July 2014, Secretary, MoRTH and NHAI agreed with the Audit contention.

#### 4.1.2.2 Jalandhar-Amritsar:

The Detailed Project Report (DPR) for 4 laning of Jalandhar-Amritsar section was prepared thrice - in 2000, 2004 and 2011. The correspondence made available indicated that DPR of 2000 covered the entire section of 69 kms (i.e. from km 387.100 to km 456.100). In the revised DPR of 2004, the stretch was divided into two sections i.e. from km 387.100 to km 407.100 (20 kms) (Section 1) and km 407.100 to km 456.100 (49 kms) (Section 2) due to high structural cost in Kartarpur town and non-viability of the said stretch on BOT mode. Therefore, the DPR consultant recommended (February 2011) execution of 20 km stretch under the EPC mode of funding. Accordingly, the work of 6-laning of the 20 km 2-lane (section 1) was awarded in November 2013 under EPC mode. Thus, one stretch of the project road from km 96.00 to 387.100 km is under 6-laning; km 407 to km 456 (Section 2) is 4-laned and the stretch of 20 km from km 387.100 to 407.100 km is still 2-lane. The outline sketch is as below:

Amritsar City	======= Jalandhar city	Panipat
Km 456.100 to km 407.100 (49Km) M/s Jalandhar-Amritsar Tollways Ltd	km 407.100 to km 387.100 (20Km)	km 387.100 to km 96.000 (291.1 km) M/s Soma Isolux NH-one tollway
4 laned completed in April 2010	2 Laned	6-laning is under progress

Delay by NHAI to widen this 20 km stretch led to a traffic bottleneck and negated the benefits of widening the remaining part of the road to 4/6 lane affecting smooth connectivity on the entire 69 km stretch. The provisional completion certificate of the project was issued on 29 April 2010.

MoRTH accepted (September 2014) the audit observation.

#### 4.1.2.3 Kishangarh-Udaipur-Ahmedabad

Initially, two separate sections (i) Kishangarh to Udaipur (315 km) and (ii) Udaipur to Ahmedabad (242.51 km) were approved by CCEA in January 2009 and January 2010 at a TPC of ₹ 3384 crore and ₹ 1750 crore, respectively. In January 2011, when the RFP had already been issued to qualified bidders for Kishangarh-Udaipur section and RFQ bids were already under evaluation for Udaipur-Ahmedabad section, NHAI moved a proposal to MoRTH stating that the project should be taken up as one 'Mega project' so as to attract international bidders.

However, the technical wing of MoRTH, in its preliminary examination expressed reservations about clubbing the two projects into one at this advanced stage as it would have led to delay in implementation. It also opined that the two individual projects were of large enough size to attract international bidders while combining the two would make the project too large and therefore difficult to implement and operate for the long period of concession. The combined project was, however, approved by CCI (September 2011) and finally awarded by NHAI (September 2011) to M/s GMR Infrastructure Ltd. at a TPC of ₹ 5387.30 crore i.e. higher by ₹ 253.30 crore as compared to the TPC of two individual projects of ₹ 5134 crore (₹ 3384 crore + ₹ 1750 crore).

MoRTH in its reply stated (September 2014) that these two sub-projects were combined into one mega project so as to attract international concessionaires and also to inject new standard and innovation in project constructions and implementation. MoRTH further, did not accept the Audit view that NHAI combined two sub-projects into one mega project and awarded the same in spite of objections of the Ministry. MoRTH accepted the fact that appointed date could not be fixed due to delay in obtaining environment clearance and as a result of this, the concessionaire served a termination notice (December 2012). However, the concessionaire expressed (in February 2013) interest in reviving the project and put forward certain suggestions regarding rationalisation of premium. In the meantime, environment clearance was obtained in March 2013. Proposal for rationalisation has been approved by the Government and conveyed to the concessionaire in April 2014 by NHAI. However, no response has been received from the concessionaire till date.

From the reply given by MoRTH definite comment cannot be arrived at since no additional documents have been provided to support the contention that the proposal for the merger of the two projects was taken by NHAI. Further, it has been mentioned in the note of the Ministry dated 3-2-2011 that these two projects were included in Work Plan I as separate projects and were also approved by the PPPAC/CCI as such. The note also stated that due to the decision of clubbing these projects, the bidding processes which were in advance stages for both, were annulled and this would lead to delay in the implementation of these projects. In addition it was noted that these individual projects were on their own big enough to attract international bidders and clubbing of the same was not appropriate. It was also noted that the design capacity of the stretch would be reached in between the proposed concession period and that a very long stretch would create problems if in any eventuality termination clause is invoked for delay in any small stretch. Despite the above reservations expressed in the note, it was decided to merge the two projects in a meeting chaired by the Minister, MoRTH in February 2011. PPPAC Note also reveals that MoRTH was already aware of the difficulties in obtaining environmental clearance and in spite of that NHAI went ahead with awarding the mega project.

With respect to the issue of rescheduling of premium payable to the concessionaire, the views of the C&AG have been communicated to MoRTH vide our letter dated 11 July

2013. In the said letter it has been clearly stated that such rescheduling is not consistent with the concession agreement and would have implications for the bidding process adopted to determine the concessionaire. Further, in any case, though the project was awarded at a premium of ₹ 636 crore per year, the same has not materialised as the concessionaire has gone in for litigation and the appointed date was yet to be declared. In the process, NHAI has already been deprived of premium of ₹ 1197.80 crore for the first two years as further discussed at para No. 5.2.3 of this report.

# 4.1.2.4 MP/MH border-Nagpur including construction of Kamptee – Kanhan and Nagpur Bypass

The project was approved by CCEA on 11 February 2009 at a TPC of ₹ 1170.52 crore. The concession period for the project was fixed at 27 years. As this project was un-viable and received poor response from bidders, NHAI added (July 2009) the maintenance of already 4- laned stretch of Nagpur- Hyderabad section of NH-7 from km 14.600 to km 36.600 (22.015 km) along with tolling rights without obtaining prior approval of CCEA to the revision. Fresh RFQ was not issued and five bidders shortlisted at RFQ stage were invited (July 2009) to submit revised bids. The project was awarded (August 2009) to M/s. Oriental Nagpur Bye Pass Construction Pvt. Ltd. with VGF of ₹ 455.21 crore. It amounted to a positive grant to the concessionaire, M/s. Oriental Nagpur Bye Pass Construction Pvt. Ltd. of ₹ 559.21 crore (₹ 455.21 crore positive grant quoted by the lowest bidder and ₹ 104.00 crore cost of the added stretch) which worked out to 47.77 per cent of the TPC.

As per the VGF mechanism, in order to make a project viable, a grant of up to 40 *per cent* of TPC may be granted to the concessionaire. Thus providing VGF of ₹ 559.21 crore was in violation of the ceiling limit of VGF of 40 *per cent* of the TPC laid down by CCEA. The amount of excess grant works out to ₹ 91.00 crore (i.e. 7.77 *per cent* of ₹ 1170.52 crore).

MoRTH replied (September 2014) that 4-lane section of km 14.600 to km. 36.600 was included in the scope of the project to attract bidders as the ceiling of 40 *per cent* VGF was not enough as per the financial viability worked out by the bidders. Therefore, the Audit contention was not acceptable. However, this reply is obfuscatory since the already developed 4-lane section of km 14.600 to km 36.600 was included in the project for maintenance and benefit of collection of tolling right without approval of the PPPAC/CCEA and in violation of the ceiling limit of VGF of 40 *per cent* of the TPC laid down by CCEA.

#### 4.1.2.5 Kanpur-Kabrai

The project for 2-laning with paved shoulder of 123 kms of NH-86 was approved by CCI (August 2010) at a TPC of ₹ 373 crore. The concession agreement was entered (March 2011) into with M/s. PNC Kanpur Highways Ltd. on the TPC of ₹ 373 crore as per the

estimate of the final feasibility report (May 2010) which included ₹ 17.59 crore towards the cost of grade separator and service road at km 41.557. However, while the CA as entered into did not provide for grade separator (including service road at km 41.557) the cost of the grade separator and service roads (₹ 17.59 crore) was not excluded from the awarded TPC. This amounted to undue benefit to the concessionaire at the cost of road users. MoRTH in its reply (September 2014) accepted that the TPC was not reduced due to the proposal having already been moved for approval by the Planning Commission. The approval of TPC by the Planning Commission is a time consuming process and in case NHAI had sent a revised TPC proposal to the Planning Commission, the whole bidding schedule would have been seriously delayed, resulting in cost overrun. Further in the Feasibility Study assignment consultants are required to determine only the tentative project cost which may vary by 10 per cent. The effect of deletion of grade separator was within 5 to 6 per cent of the forecasted TPC, due to this change in TPC the revision was not needed.

MoRTH has accepted that the cost of the grade separator was not reduced from the TPC. However, as far as the issue of revision of cost being less than 10 *per cent* is concerned, the reply of the Management is not tenable since policy quoted was formulated for projects where the TPC is reduced as a result of restructuring. This case does not qualify as one of restructuring.

#### 4.1.2.6 Hazipur-Muzaffarpur

The road stretch was approved by CCEA (March 2005) under NHDP Phase III. NHAI invited (June 2005) bids under BOT mode for 4-laning of 60 km stretch of Hazipur-Muzaffarpur section of NH 19 and NH 77. No bids were received in-spite of several extensions. As response on toll based BOT bid for the project under consideration was 'nil', NHAI submitted a note for adopting annuity based BOT model for approval by CCEA who approved (January 2008) the proposal for 4-laning on BOT (Annuity) at a TPC of ₹ 671.70 crore. MoRTH accordingly, informed (February 2008) the NHAI that bids for project under consideration may be called on BOT (Annuity) basis. It was also clarified that response to BOT (Annuity) bid would be considered adequate, even if one valid bid was received.

Despite receiving two bids for the project, the Evaluation Committee recommended for re-bid (May 2009). The second bidding (June 2009) also saw the same two parties participating. The Evaluation Committee again recommended cancellation/rebid (18 June 2009) on the ground that semi annual annuity payment demanded by the L-1 bidder of ₹ 94.60 crore (which was higher by ₹ 25.80 crore as compared to the annuity estimated by NHAI) gave an equity internal rate of return of 28.38 *per cent* which was much higher than the prevailing market range of 15-18 *per cent*. NHAI approved (October 2009) award of the work to the L-1 bidder M/s Gammon Infrastructure Projects Ltd. and letter of Award was issued (November 2009) at a semi annual annuity of ₹ 94.60 crore with a concession period of 15 years.

Thus, awarding the project without resorting to fresh RFQ restricted the competition as well as possibility of receiving more competitive bid. Further, NHAI awarded the project to the L-1 bidder by overlooking the recommendations of the Evaluation Committee, which resulted in extra cost to NHAI, amounting to ₹ 645 crore<sup>7</sup> (NPV: ₹ 395.50 crore) over the 15 year period. Project length of 50 km out of 63 km had been completed so far (September 2013).

MoRTH in its reply (September 2014) stated that all the nine interested and qualified applicants were permitted in RFP stage for expediting the implementation of the project with full competition. The project was awarded on competitive basis.

The reply of the Ministry is not acceptable since no fresh RFQ was invited even after the enhancement of estimated TPC. Therefore, the process was not competitive.

#### 4.1.2.7 Surat-Hazira

The project for 4/6 laning of Surat –Hazira port section of NH-6 was approved in February 2009 by CCEA at a TPC of ₹ 1509 crore. While clearing the project (November 2008), PPPAC noted that as 6-laning of the project was not immediately required, the project cost of ₹ 1509 crore should be rationalised suitably; and service lanes should be constructed only when the traffic level reaches 60000 PCU.

Audit noticed that though scope of the project was reduced to 4-lane, the total project cost was not reduced by NHAI commensurate with the revised scope and the project was awarded (February 2009) at the original TPC of ₹ 1509 crore to M/s Soma - Isolux Surat-Hazira Tollway Private Ltd. The VGF component allowed to the concessionaire was ₹ 556 crore despite financial consultant having stated that the project would be viable without any VGF.

On an agenda item for 71<sup>st</sup> meeting circulated to Board Members of NHAI for approval of award of the work, one of the Members observed that as against the expectation projected by the consultant that the project was viable without grant at 8 *per cent* revenue sharing with 15 *per cent* equity IRR, the lowest bid sought a grant of ₹ 556 crore. In response to the above observation, the Board was apprised that 4- laning project had a new alignment for about 47 km between Bardoli - Ichchapore along with the existing state highways leaving the existing NH-6 leading to Surat City. Thus, this highway would be a competing road with a possibility of diversion of traffic. It was further stated that this

<sup>&</sup>lt;sup>7</sup> (a) Semi annual annuities for which annuity amount is to be paid =15 years concession period <u>minus</u> 2.5 years' construction period=12.5 years, equivalent to 25 semi annual annuities.

<sup>(</sup>b) Difference in semi annual annuity amount demanded by M/s Gammon Infrastructure Projects Ltd. and that estimated by NHAI = \$74.60\$ crore  $$\frac{794.60}{40}$$  crore  $$\frac{794$ 

<sup>(</sup>c) Extra cost to NHAI=(a) X (b)= 25 semi annual annuities X ₹25.80 crore= ₹645 crore.

aspect had not been considered in the initial financial analysis carried out by the consultant which gave rise to the difference in actual VGF claim vis-à-vis the projection.

The clarification conceded that the new alignment was a later development and was not considered while fixing the TPC at ₹ 1509 crore. In fact NHAI, in contravention of the directions of PPPAC to rationalise the cost of the project by reducing its scope to 4-lane, decided (December 2008) to obtain approval for the project with bridge and other structures as 6-lane without reducing the cost. NHAI did not clarify the rationale behind taking up the project when alternate competing road existed.

MoRTH replied (September 2014) that the project was awarded to the L-1 bidder. Bids were quoted by the bidders taking into account various factors such as prevailing market conditions, possible alternative competitive routes for traffic diversion etc. Financial viability worked out by the consultant is no guarantee that the bidders shall quote exactly the same way. However, MoRTH has not provided replies to the issues raised by Audit in the para.

#### 4.2 Capacity of the road / Design service volume

Manual of Specifications and Standards for 2/4- laning of National Highways through PPP (May 2010), prepared by Indian Road Congress (IRC) and published by the Planning Commission stipulates the following parameters for augmentation of facilities and upgradation of a project highway:

#### Capacity of 2-lane highway (as per Para 2.16 of the Manual)

Nature of	Capacity of road / Design service volume				
Terrain	(in PCU per day)				
	Without paved shoulder	With minimum 1.5 m paved shoulder			
Plain	15,000	18,000			

#### Capacity of 4-lane highway (as per Para 2.17 of the Manual)

Nature of Terrain	Capacity of road / Design Service volume (in PCU per day)			
	Level of Service 'B' (for 4 to 6 lane)	Level of Service 'C' (for 4 to 6 lane)		
4-lane highway	40000	60000		

Audit noticed that the above parameters for up-gradation of 2 to 4-laning and 4 to 6 - laning were not adhered to in the following cases:

# 4.2.1 Premature approval for 4-laning projects

Table 7 has the details of projects approved for 4-laning on annuity basis, despite the fact that the minimum threshold limit of 18000 PCU per day for 4-laning was not expected to be achieved in the next five to 12 years from the date of award:

TABLE 7- Premature approval for 4-laning projects on BOT (Annuity)

Sl.	Project	Volume of traffic (in PCU per day)		Km	Date of approval	Year in which threshold capacity would be achieved for
No.	Name	Tollable traffic	Total Traffic	Kili	by IMG	up-gradation to 4-lane #
1	Nagpur- Betul	i) 6423 MP stretch ii) 16157 (Maharashtra stretch)	i) 8267 ii)20388	176.30	December 2009	2024 (for 115Km in MP)  2017(for total stretch after clubbing).
2	Lucknow- Raibareilly	8869 and 7185	11485 & 8069	70.0	March 2011	2022

<sup>#</sup> Threshold capacity is calculated on total traffic as per DPR

The above Table does not include four other projects, which were not selected for Audit, namely, Bhopal- Bareilly, Bareilly-Rajmarg crossing, Rajmarg crossing-Jabalpur and Reengus-Sikar in which the threshold capacity for 4-laning was expected to be achieved after eight to 27 years.

#### 4.2.1.1 Nagpur-Betul

The annuity outgo to the concessionaire M/s. Oriental Nagpur Betul Highway Private Ltd. during concession period in Nagpur-Betul project worked out to ₹ 9596.40<sup>8</sup> crore (NPV: ₹ 5068.58 crore) payable in 16.5 years. NHAI replied (August 2013) that the project was initially conceived as 4-lane on BOT-Toll and accordingly RFQ was issued with due date on 08 January 2010. However, preliminary financial analysis by Financial Consultant indicated that to receive an equity IRR of 15 *per cent* for a concession period of 30 years, the VGF required would be 45 *per cent* of the TPC. As the indicated VGF was more than the permissible VGF norms of maximum of 40 *per cent*, the competent authority decided (December 2009) to shift the mode of delivery to BOT (Annuity).

<sup>&</sup>lt;sup>8</sup> Semi annuity ₹290.80 crore X 33 installments = ₹9596.40 crore

The reply was not borne out by facts as initially the project was conceived as 2-lane with paved shoulder and two separate stretches (i) Betul to Maharashtra-MP border and (ii) Maharashtra-MP border to Nagpur were included in the list of 42 stretches approved by CCI in July 2008. Feasibility studies were also conducted separately, but subsequently, the two projects were clubbed together, reasons for which were not available on record. It may be seen from the Table above that the stretch from Betul to Maharashtra-MP border would achieve the design service volume for up-gradation to 4-lane in the year 2024.

MoRTH admitted in its reply (September 2014) that the one stretch of the project was prematurely upgraded.

### 4.2.1.2 Lucknow-Raibareilly

The annuity outgo to the concessionaire M/s. Essel Lucknow Raibareilly Toll Roads Private Ltd. in Lucknow- Raibareilly project worked out to ₹ 1461.60 crore<sup>9</sup> (NPV: ₹ 830.09 crore) payable in 14.5 years. In the Exit Conference held on 22 July 2014, as well as in its reply, MoRTH stated (September 2014) that the average total traffic on the project highway in 2010 was about 13677 PCU per day. Threshold capacity for 4-laning (15000 PCU) was met in the project start year 2012.

The reply is not supported by the fact that the average total traffic in 2010 on this stretch as submitted by MoRTH to IMG (March 2011) was only 9777 PCU per day. Copy of the traffic census of 13677 PCU was also not provided to Audit as directed by the Secretary, MoRTH during the Exit Conference. The fact remains that the project did not meet the specifications and standards as approved by the Planning Commission.

Unwarranted 4-laning of the two projects mentioned above and in para 4.2.1 would result in extra cost of construction ₹ 1724.10 crore<sup>10</sup> which was avoidable, apart from increased user fee to be paid by road users which was higher by 66.67 *per cent* for 4-lane as compared to 2-lane.

#### 4.2.2 Premature approval of 6-laning projects

Table 8 has details of projects that were approved for 6-lane on BOT (Toll) basis, despite the fact that the minimum threshold limit of 60000 PCU per day for 6-laning was not expected to be achieved in the next 10 to 25 years:

Total km for Nagpur-Betul (176.30 km) and Lucknow-Raibareily (70 km) = 246.30 km 246.30 km (₹9.5 crore for 4 laning minus ₹2.5 crore for 2 laning) = ₹1724.10 crore

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<sup>&</sup>lt;sup>9</sup> Amount of Semi annuity ₹50.40 crore X 29 installments =₹1461.60 crore

**TABLE 8- Premature approval of 6-laning projects** 

Sl. no.	Project	Successful Bidder/concessionaire	Average volume of total traffic (year)	Km	Approval of CCEA/CCI	Year of achieving Threshold capacity for 6- lane	Status of Levy of toll by the concessionaire
1	Varanasi- Aurangabad	M/s. SOMA ISOLUX	18407 (2010)	192.400	January 2009	2034	Started since September 2011
2	Kishangarh- Ahmedabad	M/s GMR Infrastructure Ltd	35245 (2011)	555.500	September 2011	2022	Not started till August 2013
3	Aurangabad- Barwa Adda	M/s kmC	22000 (2012)*	218.75	March 2012	2024 <sup>11</sup>	Not started till March 2013

<sup>\*</sup> As per Planning Commission

### 4.2.2.1 Varanasi-Aurangabad

The average actual PCU for the above stretch was only 18407 in February 2010. Considering traffic growth at an average five *per cent* each year, the project would reach its carrying capacity of 60000 PCU and be eligible for upgradation only in 2034, i.e., 25 years after the date of approval. Thus the project was approved for 6-lane prematurely. Awarding the work of 6-laning prematurely would result in extra burden of ₹565 crore by way of VGF on NHAI as well as forgoing of toll revenue by GoI for 24 years (2011-34).

MoRTH in its reply accepted (September 2014) that the 6-laning of sections of Golden Quadrilateral (GQ) including Varanasi-Aurangabad was taken up as per the approval of GoI wherein it was decided to 6-lane the entire GQ network of 5700 km. The figure 18407 PCU in February 2010 was not total traffic but tollable traffic as per average at two toll plazas. The total traffic was generally 15 to 20 *per cent* more than the tollable traffic. Further, in case of delayed implementation the cost of construction would have gone up and overall project viability would have decreased. MoRTH, further replied that there was no extra burden of ₹ 565 crore on account of VGF and forgoing of toll revenue as no major maintenance was carried out by NHAI except for routine maintenance.

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<sup>#</sup> Threshold capacity is calculated on total traffic as per DPR

<sup>&</sup>lt;sup>11</sup> The threshold capacity for up-gradation in 6-lane will be achieved in 2032-33 if traffic growth is considered at an average five per cent each year. However, in PPPAC meeting, Director, DEA suggested that on the basis of traffic growth the threshold capacity for 6-lane would be achieved in 2024. Therefore, the conservative estimate has been adopted.

MoRTH reply (September 2014) needs to be viewed against the fact that the PPPAC had been consistently adopting minimum threshold limit of 60000 PCU for 6-laning projects. Para no 2.17 and 2.18 of Manual of Specifications and Standards for 4-laning projects issued by the Planning Commission in May 2010 clearly provided for design capacity at which the project for 6-laning could be conceived. Further, even after increasing the traffic by 15 to 20 per cent as suggested in MoRTH reply, the design capacity of 60000 PCU for 6-lanes in Varanasi-Aurangabad was expected to be reached only during 2016 to 2018. Contention of MoRTH that in case of delayed implementation the cost of construction would have gone up and overall project viability would have decreased is not acceptable since the road had been widened from 2 to 4 lane only in 2004 and therefore there was no immediate need for upgradation to 6 lane and as such MoRTH contention regarding no extra burden of ₹ 565 crore is not based on the facts. Therefore, taking up the stretch prematurely was not justified. Moreover, expenditure incurred on road side amenities for 4 laning viz. utility shifting, truck lay-byes, pedestrian facilities, plantation, drainage, aprons, pitching relocation of crash barriers, lighting, sign boards etc. would also become infructuous.

## 4.2.2.2 Kishangarh-Udaipur-Ahmedabad:

Initially two separate sections (i) Kishangarh to Udaipur (315 km.) (ii) Udaipur to Ahmedabad (242.51 km) were approved by CCEA in January 2009 and January 2010 at a TPC of ₹ 3384 crore and ₹ 1750 crore, respectively. Subsequently, in January 2011, when the RFP had already been issued to qualified bidders for Kishangarh-Udaipur section and the RFQ bids were under evaluation for Udaipur-Ahmedabad section, NHAI moved a proposal to MoRTH recommending that the project be taken up as one Mega project to attract international bidders. Average total traffic at this point was 35245 PCU (as per traffic data for the year 2011). After taking into account average five *per cent* traffic growth each year, the project would reach its carrying capacity of 60000 PCU and be eligible for up-gradation in 2022, i.e., 11 years after the date of approval. Thus, the decision to upgrade the project for 6 lane was premature and in contravention to the provisions of Manual of Specifications and Standards referred above.

MoRTH stated (September 2014) that this was also a part of GQ and 60,000 PCU per day capacity denoted the design capacity of 4-lane highway with level of service 'C' i.e. after this traffic level, 4-lane road would be as good as choked and it had to be necessarily upgraded to 6-lane, which did not mean that up-gradation of 6-lane should start only after the road was completely choked. Even otherwise, Cabinet laid down the norms of 25,000 PCU for up-gradation of individual stretches for 6-lane under NHDP Phase V. Accordingly, the stretch of Kishangarh-Udaipur-Ahmedabad was selected for 6-laning.

The reply needs to be viewed in the light of the fact that PPPAC had been consistently adopting minimum threshold limit of 60000 PCU for 6-laning projects. Further, Para no 2.17 and 2.18 of Manual of Specifications and Standards for 4-laning projects issued by the Planning Commission in May 2010 clearly provided for design capacity at which the

project for 6-laning could be conceived. The project had been widened from 2 to 4-lane only in 2008. Therefore, taking up the Kishangarh-Udaipur stretch 10 to 12 years before it was required, was not justified. Moreover, part of the expenditure incurred on road side amenities for 4-laning viz. utility shifting, truck lay-bys, pedestrian facilities, plantation, drainage, aprons, pitching, relocation of crash barriers, lighting, sign boards etc. would also become infructuous.

#### 4.2.2.3 Aurangabad-Barwa Adda

The project was approved for 6-laning by PPPAC in March 2012 with a TPC of ₹ 2340 crore with maximum VGF of ₹ 234 crore (10 per cent of TPC). As traffic projections for this project were considered at around 26000 PCU only, it did not justify 6-laning till 2024 which was also contrary to the provisions of Manual of Specifications and Standards. Also, the road had been widened from 2 to 4-lane in 2010 under the World Bank funded Grand Trunk Improvement Project. Thus, the project was envisaged and approved for 6-lane at a very early stage. Full potential of investment in 6-laning would thus be realised only from 2024 onwards. Apart from this, part of the expenditure incurred on road side amenities created in 2010 during widening of road stretch from 2 to 4-lane viz. utility shifting, truck lay-bys, pedestrian facilities, plantation, drainage, aprons, pitching, relocation of crash barriers, lighting, sign boards etc. would also become infructuous. MoRTH accepted (September 2014) that a decision was taken to upgrade the Aurangabad-Barwa Adda section of NH-2 into a 6 lane as it was the part of GQ stretches. The stretch was not developed on the basis of volume of traffic.

# 4.3 Determination of concession period

As per the procedure defined in the Model concession agreement (MCA), the carrying capacity of the respective highway at the end of the proposed concession period would be the guiding principle for determining project-specific concession period and the year in which the design capacity would be reached would be the last year of concession. Accordingly, the total traffic on the stretch of highway is to be considered for determining the design capacity / concession period. Further, as per the directions of the Planning Commission the concession period was to be restricted to the period when the traffic reached the maximum design capacity. Audit noticed inconsistencies in adopting total traffic / carrying capacity for determining the concession period resulting in NHAI fixing higher concession periods, which would result in unwarranted burden on road users by way of toll for the extended period.

#### 4.3.1 Concession period determined by considering tollable traffic

NHAI considered only tollable traffic instead of total assessed volume of traffic (i.e carrying capacity of the road) in the cases given in Table 9 below. This resulted in fixing of longer concession period which put an extra burden on road users. During these

extended concession periods, the concessionaires would collect toll at least to the tune of ₹ 28095.54 crore<sup>12</sup> (NPV: ₹ 3233.71 crore), while the roads would become congested for the toll paying users. MoRTH accepted in its reply (September 2014) as well as during the Exit Conference, the audit observation regarding incorrect adoption of tollable traffic instead of total traffic for determination of concession period. It was stated by the MoRTH that instruction in this regard have been reiterated by way of a circular.

TABLE 9: Extra burden on road users due to longer concession period

Successful Bidder/	Name of	Concession period in years based on		Excess concession	Extra burden on road	Remarks
concessionaire	project	Total Traffic	Tollable Traffic	period (in years)	users (₹ in crore)	icinai ks
M/s IRB Jaipur Deoli Tollway Pvt. Ltd.	Jaipur Tonk Deoli	23	25	2	2061.39	Toll value of the last two years of the concession period as per financial consultant
M/s L&T BPP Tollway Pvt. Ltd.	Beawar Pali Pindwara	21	23	2	2142.97	The concession period on the basis of assessed total average traffic was initially worked out at 21 years by NHAI
Varanasi Aurangabad Tollway Pvt. Ltd.	Varanasi Aurangabad	15/23	30	7	11547.75	Concession period was 15 years as per DPR and 23 years as per feasibility report.
M/s PS Toll Road Pvt. Ltd	Pune-Satara	20	24	4	3421.08	₹3421.08 crore is the revenue projected during the 21st year to 24th year by the financial consultant at the time of financial evaluation of the project
M/s DA Toll Road Pvt. Ltd	Delhi-Agra	22	26	4	752.80	Basis of fixing concession period at 26 years by NHAI is not available. Considering 42830 PCU (as per the appraisal note submitted by NHAI to PPPAC) as base traffic in the year 2008, with five <i>per cent</i> growth the project would reach its carrying capacity of 120000 PCU in 2030 i.e. in 22 years. Considering toll revenue of at least ₹188.20 crore per year from 23 <sup>rd</sup> year to 26 <sup>th</sup> year, the total extra burden on road users would be ₹752.80 crore. (Feasibility consultant projected toll revenue for 22 <sup>nd</sup> year at ₹188.2 crore)

<sup>&</sup>lt;sup>12</sup> Projected toll revenues calculated by financial consultants in financial analysis.

Successful Bidder/ concessionaire	Name of project	period	ession in years ed on Tollable Traffic	Excess concession period (in years)	Extra burden on road users (₹ in crore)	Remarks
M/s.Kiratpur Ner Chowk Expressway Ltd.	Kiratpur- Ner chowk	24	28	4	4631.46	NHAI projected total traffic of 10106 PCU in the base year 2010 in the note submitted to PPPAC. However, with the given total traffic as increased by 5 <i>per cent</i> growth per year, the design capacity would be achieved in 2034, i.e. in 24 years. The extra burden from 25 <sup>th</sup> year to 28 <sup>th</sup> year is based on the toll projections by the financial consultant.
Himalayan Expressways Ltd.	Zhirakpur- Parwanoo	14	20	6	501.00	As the total traffic was 32000 PCU for the base year 2006 and with 5 per cent growth per year, the same would be reached in 14 years. The extra burden is worked out on the toll projections by the financial consultant.
Sambalpur Baragarh Expressway Pvt. Ltd.	Sambalpur- Baragarh	27	30	4	1641.01	Considering five <i>per cent</i> growth annually the design service volume of 60000 PCU would be reached in 27 years. However NHAI allows concession period of 30 years in the concession agreement by taking into consideration, tollable traffic instead of average total traffic
	To	tal		₹28095.54 (NPV: ₹ 3233.71)		

In the case of Beawar-Pali-Pindwara and Jaipur-Tonk-Deoli roads, NHAI replied (August 2013) that it was more prudent to consider the tollable traffic derived from the PCU definition as the base for fixation of concession period. In case of Varanasi-Aurangabad, NHAI stated that to limit the VGF within the prescribed limit of 20 *per cent*, the concession period was fixed as 30 years. NHAI further added that at the time of bid, the concession period is fixed at an assumed traffic growth of five *per cent* and a provision was made under clause 29.1 of the CA whereby the actual traffic on a target date would be compared with target traffic and the concession period would be reduced/increased accordingly based on the provisions of CA.

The reply ignores the fact that MCA clearly provided that the concession period was to be worked out based on the volume of traffic including tollable as well as non/tollable traffic. Thus, the total volume of traffic, which was the carrying capacity of a road, should have been taken into account for working out the concession period. As regards applicability of clause 29.1 of the CA, in case of increase/decrease in the assessed volume of traffic after the road project was awarded, it had no bearing on the concession period fixed initially. It is also irrelevant as the Audit observation relates to adoption of incorrect traffic volume *ab initio*. NHAI decision to consider the lower value of assessed traffic was also not correct as it would lead to congestion on the project road at toll locations when the traffic volume reached the design (carrying) capacity of the road.

While agreeing to the audit observation, in the 'Exit Conference' held on 22 July 2014, MoRTH / NHAI stated that the instructions in this regard had been reiterated by way of a circular.

## 4.3.2 Inconsistency in considering traffic volume

Audit noticed lack of consistency while considering traffic volume for determining the concession period in the following instances:

**4.3.2.1** The project for 4 laning of Indore-Gujarat-MP border stretch of NH- 59 was approved by CCI in December 2009 at a TPC of ₹ 1175 crore. The project was awarded in the same month to M/s. IVRCL Indore Gujarat Tollways Ltd with concession period of 25 years. The concession period was fixed by considering the highest assessed traffic at one out of five locations projected by the feasibility consultant instead of considering average total traffic. In three other cases namely Agra-Aligarh, Raibareilly-Allahabad and Kishangarh-Ahmedabad projects, which were test checked in Audit, it was noticed that average total traffic was considered for determining the design capacity/ concession period of the projects.

**4.3.2.2** As per the Manual for Specification & Standards 4-laning should be taken up when the carrying capacity reached 18000 PCU. Four projects i.e. Raibareilly to Allahabad, Aligarh to Kanpur, Agra to Aligarh and Kanpur to Kabrai were approved for 2-laning with paved shoulder though the carrying capacity was expected to reach 18000 PCU in only a few years of award, i.e. between 2013 to 2017. Thus in these projects, the roads would be congested within a few years necessitating 4-laning. In the process, part of the cost of utility shifting, signages, paved shoulder etc would become infructuous. Further, as the carrying capacity of Raibareilly to Allahabad stretch was considered at 25000 PCU, the concession period should have been fixed at 13 years. Instead, the project was awarded to M/s. Raibareilly Allahabad Highway Pvt. Ltd., with concession period of 16 years. The excess concession period of three years would result in road users paying ₹ 249.50 crore (NPV: ₹ 79.25 crore) for use of a congested road.

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Thus, there was no consistency in working out the concession period and different criteria were adopted for different projects. NHAI has not furnished any comments/clarifications with regard to the lack of consistency in adopting total/tollable traffic for working out the concession period.

**Recommendation 4:** While restructuring projects, technical and financial feasibility may be strictly adhered to and cost of the project should be revised with due diligence. Concession period after restructuring should also be determined as per revised projections of the traffic. Restructured projects should go through fresh bidding process to ensure competitiveness and transparency.

**Recommendation 5:** At the time of up-gradation of the projects from 2-lane to 4-lane and from 4- lane to 6-lane, the Manual for Specification and Standards may be followed consistently.

**Recommendation 6:** At the time of determining the concession period, NHAI may ensure consistency in adoption of the norms for traffic i.e. total traffic or tollable traffic.

# **Execution of Projects**

# 5.1 Delay in signing of Concession Agreement (CA)

Once the bidder for the project is finalized by NHAI, LOA is issued and the concessionaire has to sign CA within 45 days of LOA. However, neither MCA nor draft concession agreement, which is part of RFP documents, contained any provision for imposition of penalty for delay. **Annexure-1** gives the status of delays in signing CA beyond the prescribed period of 45 days. Out of 94 projects reviewed, delay in 21 projects in signing concession agreements ranged between more than 100 days (Bangalore-Hoskote Mulbagul) and 373 days (end of Durg Bypass).

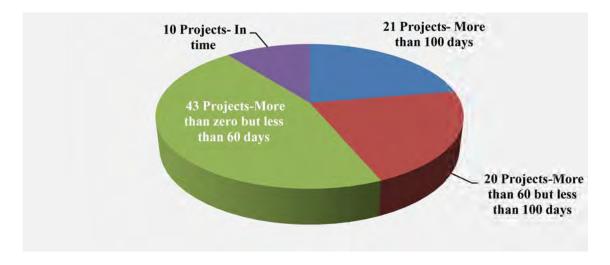


Chart 6: Delay in signing of CA

MoRTH accepted (September 2014) the delays and stated that before signing the agreements, the concessionaire had to create a Special Purpose Vehicle (SPV) which involved preparation of various legal documents and examination thereof, which was a time consuming process. MoRTH, further, also agreed that in the absence of penalty clause, NHAI could not levy damages on concessionaire.

The reply ignores the fact that the procedure for formation of SPVs was well known to successful bidders as well as to NHAI, and that delays in signing of CA add to the overall delay in execution of projects.

# 5.2 Preconstruction activities/Conditions precedent to be fulfilled before financial closure/appointed date.

As per Article 4.1.2 of MCA, the conditions precedent to be fulfilled by NHAI would be deemed to have been fulfilled when NHAI shall have:

- Procured for the concessionaire the Right of Way (RoW) to the site in accordance with the provisions of Article 10.3.1 (Article 10.3.1 read with the Article 10.3.2 stipulates at least 80 *per cent* RoW of the total area of the site required and necessary for the project);
- Procured approval of Railway authorities in the form of a general arrangement drawing that would enable the concessionaire to construct road overbridges/ underbridges at level crossings on the project highway in accordance with the Specifications and Standards and subject to the terms and conditions specified in such approval; and
- Procured all applicable permits relating to environmental protection and conservation of the site.

There were delays and deficiencies on the part of NHAI in complying with the above precedent conditions. The cases are discussed below:

### 5.2.1 Right of way and vacant access to the site

Though the most important condition precedent is handing over RoW by NHAI, most of the projects scrutinized in Audit were either delayed or held up for delay in land acquisition. While contracts were awarded by NHAI on the rationale that major portion of land in shape of existing RoW (i.e. the road to be upgraded) was available, construction activities could not be started/completed due to failure of NHAI in making available the entire land required for the projects. NHAI did not provide project-wise details of land yet to be provided to the concessionaire and these details were also not readily accessible from records made available to Audit. As land was acquired in piecemeal at different times, Audit was unable to quantify the impact of delays in land acquisition. However, examination in Audit revealed that out of 94 projects reviewed, NHAI handed over land to the concessionaire on appointed date in 31 projects. Audit further noticed that NHAI did not hand over stipulated quantum of land to concessionaires in 17 projects while details of land handed over were not available in the remaining 46 projects. MoRTH in their reply (September 2014) has admitted to delays in complying with conditions precedent.

### 5.2.2 Approval of ROBs/RUBs.

Audit noticed delays ranging from 100 days (Barasat-Krishnagar) to 1946 days (Vijayawada-Chilakaluripet) from the scheduled date (Annexure 1) in obtaining approval of ROBs / RUBs in 94 projects reviewed. The position is depicted in Chart 7 below:

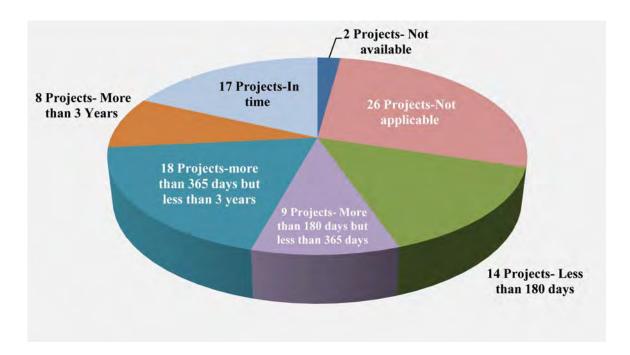


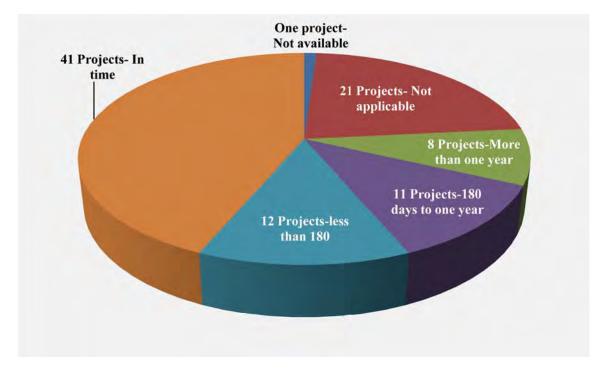
Chart 7: Delay in approval of ROBs/RUBs

#### 5.2.3 Environmental Clearance

In 21 projects, environment clearance was not required, while in one project information regarding environment clearance was not made available by NHAI. In 31 out of the remaining 72 projects, delay in obtaining environment clearance ranged from 26 days (Vadape-Gonde) to 1350 days (MP/MH Border-Nagpur including construction of Kamptee-Kanhan and Nagpur bypass) (Annexure 1).

It was also noticed that even after issue of instructions by MoRTH vide OM dated 15 July 2011 to make the Environmental Clearance as a condition precedent before Appointed Date, NHAI awarded four<sup>13</sup> projects without obtaining environmental clearance in advance. In the absence of such clearance, Appointed Date had not been fixed as yet (March 2014). Delays in obtaining environmental clearance were as shown in Chart 8 below:

<sup>&</sup>lt;sup>13</sup> (i) Yamunanagar-Panchkula (ii) Aurangabad-Barwa Adda (iii) Mahulia-Kharagpur (iv) Kishangarh-Ahmedabad



**Chart 8: Delay in obtaining environmental clearance** 

MoRTH accepted the delay (September 2014) and explained that they had no control over land acquisition since this was a State subject. It was further stated that in case of ROB/RUB, Railways were responsible for approving General Arrangement Drawings (GAD) and the process was long drawn. As regards delays in obtaining environmental/forest clearances, it was explained that since such clearances are accorded by the respective Ministries, the process took a long time.

The reply of NHAI highlighted the fact that NHAI was unable to resolve these bottlenecks even after more than 18 years of its operations and after more than seven years since the NHAI started (2006) awarding projects in PPP Mode. This also indicated a gap in synchronization of activities and coordination between Government agencies. Delays on account of environmental clearance and land acquisition led to increase in cost of projects apart from affecting the revenue stream of the GoI in premium projects. Further, status of land acquisition indicated ineffectiveness and deficiencies of independent units set up by NHAI for the purpose. As regards ROB/RUB approvals, NHAI did not furnish stage wise details of drawings submitted by concessionaires, approval of IE/NHAI thereto, submission of the same to the Railways and further follow up by NHAI. Efforts made by NHAI to curtail delays were also not specified in the reply.

The impact of delay in obtaining environmental clearance may be understood with the example of Kishangarh-Udaipur-Ahmedabad project. The project for 6-laning was awarded on 22 September 2011 to M/s. GMR Infrastructure Ltd. on BOT (Toll) basis with a concession period of 26 years on an annual premium of ₹ 636 crore with five *per cent* increase every financial year payable by the concessionaire to NHAI. While the project was awarded in September 2011, environmental clearance was obtained much

later in March 2013. Though the scheduled Appointed Date as per CA was 28 May 2011, the date was not fixed so far (March 2014). The concessionaire served termination notice (7 January 2013) on NHAI and the case was sub-judice (March 2014). On the other hand, NHAI stated (June 2013) that at the request of the concessionaire, it had moved a proposal to GoI for rescheduling the premium of ₹ 30000 crore receivable during the entire period of concession, decision on which was awaited. Thus avoidable delay in obtaining environmental clearance/fixing of Appointed Date (till March 2014) deprived NHAI of the revenue of ₹ 1197.80 crore.

# 5.3 Delay in achieving Financial Closure and Appointed Date.

Financial Closure is the date on which financing documents for funding by lenders becomes effective and the concessionaires get immediate access to such funds. As per Article 48.1 of MCA, financial closure means fulfilment of all conditions precedent to the initial availability of funds under the financing agreements and it is one of the most important condition precedents to be fulfilled by the concessionaires and NHAI. Project expenditure is met by the concessionaire out of equity and loan component. As per clause 24.1.1 of MCA, the financial closure should be achieved within 180 days of signing CA. MCA also provides for penalty to be levied on concessionaires/NHAI for not achieving any of the conditions precedent.

As per Article 48.1 of MCA, 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. All conditions precedent should, however, either be fulfilled or waived before fixing the appointed date.

In 35 out of 94 projects reviewed, audit noticed major delays ranging from 105 days (Zirakpur-Parwanoo) to 568 days (Angul-Sambalpur) in achievement of Financial Closure (Annexure 1). Delays were mainly due to non-fulfilment of conditions precedent either by the concessionaire or NHAI or by both. As major portion of project is financed through borrowed funds, any delay in financial closure would only add to the delay in completion of project.

MoRTH admitted (September 2014) delays in the financial closure of various projects. The delays were mainly due to non-fulfilment of the required conditions precedents either by the Concessionaires or by the NHAI or by both. The Ministry therefore feels that the waiver of penalties by mutual consent of both sides is justifiable.

Audit observed that waiving of condition precedent as mentioned in the CAs was not a solution for commencing the projects and was not beneficial for the projects as the same needed to be fulfilled subsequently too. Waiving of conditions precedent (like non handing over of land, non approval of GAD for Railway over bridges, environment clearance etc.), led to extensions of time (EOTs) granted to the concessionaire at a later stage. Such EOTs were granted without levy of damages for delay in completion of

projects on various claims of concessionaire for non fulfilment of conditions by NHAI. Deterrent available in CA, for timely completion of project, in the form of conditions precedent got diluted / removed due to waiving of the conditions precedent, while declaring Appointed Date. This did not help in avoiding delay in completion of projects.

Similarly, Audit noticed major delays ranging from 101 days (Ghaziabad-Aligarh) to 790 days (Barwa Adda- Panagarh) in 37 out of 94 projects reviewed, in achieving the Appointed Date (Annexure 2). In 33 (Annexure 3), out of 94 projects reviewed, appointed date was fixed after the date of Financial Closure which was in contravention of the terms of MCA.

MoRTH admitted (September 2014) the delays and stated that the delays in Appointed Date are primarily due to delays by NHAI in procurement of conditions precedent as per clause 4.1.2 of the CA such as ROW, Environment and Forest Clearance, clearance from Railways for ROBs etc. In certain cases the Concessionaire also delayed procurement of conditions precedent as per Clause 4.1.3 of the Concession Agreement.

With reference to projects where the Appointed Date was fixed after the date of Financial Closure, MoRTH replied (September 2014) that the definition in the MCA provides for declaration of Appointed Date, either before the Financial Closure, with mutual consent, on the date of Financial Closure, if conditions precedent are satisfied and after the date of Financial Closure, deemed Appointed Date when all conditions precedent are either satisfied or waived. The reply is not acceptable as Article 48.1 of MCA, clearly states that the 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.

A few illustrative cases are discussed below:

#### 5.3.1 Surat-Dahisar:

The concessionaire, M/s IRB Surat Dahisar Tollway Pvt. Ltd was to achieve Financial Closure within the 180 days stipulated in CA, i.e., by 27 October 2008. On the concessionaire's request, NHAI allowed extension of 90 days, i.e., up to 27 January 2009 on the ground of 'unprecedented financial crisis in the global market'. The concessionaire did not achieve financial closure even within the extended period of 90 days (28 October 2008 to 27 January 2009). NHAI, however, did not levy penalty of ₹ 7.62 crore for failure of the Concessionaire in achieving the Financial Closure even after extension of time.

MoRTH in their reply stated (September 2014) that due to unprecedented financial crisis in the global market and the constraints which the concessionaires faced at that time from lenders, the extension of period was approved without levy of penalty. Reply of the Ministry is not acceptable as even during the extended period, the concessionaire was unable to achieve Financial Closure.

#### 5.3.2 Gurgaon-Kotputli:

Damages to the tune of ₹ 10.42 crore in Gurgaon-Kotputli project were waived by NHAI on the ground that the concessionaire M/s. Pink City Expressways Private Ltd. faced adverse global/market conditions. The decision of NHAI was beyond the ambit of CA, and gave an undue benefit to the concessionaire.

MoRTH in their reply stated (September 2014) that due to unprecedented financial crisis in the global markets, the Financial Closure date was extended. NHAI justified the extension without levy of damages on the ground that there was delay in issue of user fee notification by MoRTH. However, issuance of fee notification was not one of the conditions precedent as per CA and Appointed Date could have been declared on achieving Financial Closure by concessionaire. As the concessionaire was clearly in default, NHAI's decision to waive damages for delay in achieving financial closure was not in order.

### 5.3.3 Jhansi-Lalitpur:

As per CA, Financial Closure for the project was to be achieved on 28 March 2007 which was achieved on 14 May 2007, i.e. with a delay of seven weeks. NHAI was to levy a penalty of ₹ 7.55 lakh on the concessionaire, which was not done. MoRTH stated (September 2014) that records relating to the project were not available.

#### 5.3.4 Barhi-Hazaribagh:

As per CA 'Appointed Date' is the date of commencement of concession period from which concessionaire can start construction of the project. In case concessionaire starts construction before Appointed Date, it clearly gives undue benefit to concessionaire in terms of increase in concession period i.e. it can collect toll for more time in BOT (Toll) projects by early completion of construction work.

The Vigilance Wing of NHAI reported (20 September 2011), that in Barhi-Hazaribagh project actual civil work was started by the concessionaire, M/s Abhijeet Hazaribagh Toll Road Ltd., from 28 February 2011 and had achieved 13 *per cent* progress as on 22 July 2011. NHAI had declared appointed date of this stretch as 11 February 2012 with the condition that the value of work done till that date by the concessionaire would be reduced from the concession period of the said stretch. However, the Regional Office of NHAI at Kolkata had proposed (July 2012) to reduce only 93 days from the construction period as well as from the concession period of the project. Hence, the concessionaire was given an undue benefit of extra 255 days (348-93) over and above the concession period of 24 years allowed in CA. The value of toll for the excess period of 255 days worked out to ₹ 16.79 crore. As on 30 September 2013, the project had achieved physical progress of 35.8 *per cent*.

MoRTH stated (September 2014) that the penalty on NHAI and on the concessionaire under clause 4.2, 10.3.2 & 10.3.4 on account of non-fulfilment of condition precedent and delay in Financial Closure was mutually waived off. Therefore, there is no undue benefit to concessionaire in declaring the Appointed Date as on February 2012. The reply given by the Ministry is not complete as no response has been provided to the lacunae in the project pointed out by the Vigilance Wing of NHAI.

### 5.3.5 Agra- Aligarh

Appointed date for the project was fixed as 18 April 2012 which was revised to 09 October 2012 by NHAI. Though first stage environmental clearance from the Ministry of Environment & Forests (MoEF) was available (16 April 2012) before award date and work relating to grubbing and paving could have been started, the concessionaire, M/s Brij Bhoomi Expressway Pvt. Ltd. did not commence work till September 2012 when second stage environmental clearance was obtained by NHAI. The concessionaire obtained permission from Village Panchayat and Government of Uttar Pradesh for burrowing earth on 23 January 2013 i.e. only after the revised appointed date. Concessionaire had not obtained permission of the State Government for drawing water from river/reservoir and clearance from Village Panchayat and Pollution Control Board for Asphalt Plant till January 2013. Though the concessionaire could have commenced the work (based on first stage environment clearance), rather than levy penalty/damages for failure to achieve conditions precedent, NHAI chose to revise the appointed date to October 2012, which was not in order and amounted to extension of undue favour to the concessionaire.

MoRTH stated (September 2014) that delay in Appointed Date is on account of delay in 2<sup>nd</sup> stage forest clearance from the MoEF, as permission for tree cutting was given only in October 2012. The reply of MoRTH is not acceptable as work relating to grubbing and paving could have been started even after the first environmental clearance, but as seen during audit, there was delay of six months on the part of the concessionaire in obtaining the second clearance and work began only in October 2012, after fixing of the second date.

# 5.4 Variations in Total Project Cost (TPC)

While TPC worked out by DPR consultant and approved by NHAI, for a project, inter alia, forms the basis for obtaining approvals of competent authority and for deciding about eligibility of bidders for obtaining RFQ; TPC as worked out by the concessionaire's forms the basis of their bid. In this regard, out of 94 projects reviewed in Audit, two were terminated before financial closure while records were not available in three projects. In 85 of the remaining 89 projects, TPC assessed by the concessionaire was more by ₹36612.91 crore as compared to TPC provided in CA (Annexure 4). In these 85 projects, the excess TPC worked out by the concessionaire ranged from 0.32 per cent (Aurang-

Saraipalli) to 223 per cent (Bharuch-Surat). In 25 projects alone, the difference was more than 50 per cent.

The higher TPC worked out by the concessionaires allows them to avail higher amount of borrowed funds. Further, in case the project gets terminated because of default of NHAI, it is liable to pay to the concessionaire, by way of termination payment as per Article 37.3.1 of MCA, an amount equal to (a) Debt Due; and (b) 150 *per cent* of the Adjusted Equity. Further, as per the article for termination payments, read with definitions of 'debt due' and 'termination payment' provided in the above Article, in the event of termination of CA, NHAI would have to pay an amount equal to 90 *per cent* of the debt due and payable, less insurance claim admitted to principal lenders.

MoRTH admitted (September 2014) the fact that there are substantial differences between the TPC mentioned in the Concession Agreements (which are as per the DPR) and the project cost worked out by the concessionaire and lenders in the financial package. The difference between NHAI's TPC and financial package project cost is mainly due to the fact that the concessionaires worked out their own project cost based on market rates which are bound to vary from the TPC arrived at by NHAI which are generally based on applicable SoR at the time of preparation of Feasibility Report.

The reply is not acceptable as the estimates being worked out for projects in the DPR need to be realistic for successful implementation of the project. However, in 25 cases the difference was more than 50 *per cent*. Further, in case of termination, as NHAI is expected to take over and maintain the project from the concessionaire, higher TPCs allow concessionaires to raise higher quantum of debt. This amounts to passing on the risks of participating in projects to NHAI / bankers. Thus, the residual risk for NHAI increases when the concessionaire avails higher loan funds than envisaged.

# 5.5 Delays in Completion of Projects

Once the appointed date of the project is fixed, the project is required to be completed within the construction period which is generally 2.5 to 3 years. Delays in completion of projects on the scheduled completion date ranged from six days (Patna-Bakthiyarpur) to 1249 days (Bangalore– Hoskote – Mulbagul). Out of 94 projects reviewed, though 60 projects (Annexure-5) were due to be completed by end of March 2014 or earlier, only five projects were completed in time. The ratio of projects reported to have been completed in time to projects delayed works out to 1:11. Out of the five 14 projects reported to have been completed in time, two projects namely MP/MH Border-Nagpur including construction of Kamptee-Kanhan and Nagpur bypass and Hungud-Hospet were only partially completed (PCC issued on 11 June 2012 and 3 November 2012, respectively) where delay was due to reasons attributable to NHAI/force majeure.

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<sup>&</sup>lt;sup>14</sup> (i) Badarpur elevated highway (ii) MP/MH Border-Nagpur including construction of Kamptee-Kanhan Nagpur Bypass (iii) Vadodra to Bharuch (iv) Kadtal-Armour- package 8 (v) Hongud-Hospet

MoRTH while accepting the facts stated (September 2014) that delay in completion of the projects was mainly due to non-fulfilment of conditions precedent.

# 5.6 Delay in completion of the 'Punch List' items and non-levy of 'Damages' amounting to ₹ 69.42 crore

As per Article 15.1 of MCA, the project highway shall enter into commercial service on Commercial Operation Date (COD) whereupon the concessionaire shall be entitled to demand and collect fee in accordance with the provisions of Article 27. In the case of 4-laning project, the highway is deemed to have been completed when the completion certificate or the provisional completion certificate (PCC), as the case may be, is issued under Article 14.3 of MCA. Accordingly COD of the project shall be the date on which such completion certificate or the PCC is issued. In 6-laning projects, COD is the Appointed Date of the project.

Article 14 provides that the Independent Consultant/ Independent Engineer may issue PCC after determining that certain tests as provided in Schedule-I (MCA-2011) were successful and if at least 75 per cent of the total length of the project highway had been completed; and the project highway could be safely and reliably placed in commercial operation, though certain works were not yet complete. In such an event, the PCC shall contain a list of outstanding items signed jointly by the IC/IE and the concessionaire (punch list).

MCA further provides that all items in the punch list shall be completed by the concessionaire within 90/120 days (as per relevant CA) of the date of issue of PCC and for any delay thereafter, other than for reasons solely attributable to NHAI or due to *force majeure*, NHAI shall be entitled to recover damages from the concessionaire to be calculated and paid for each day of delay, until all items are completed, at the prescribed rate of the cost of completing such items as estimated by the IC/IE as specified in the Agreement. Subject to payment of such damages, the concessionaire shall be entitled to a further period not exceeding 120/180 days (as per relevant CA) for completion of punch list items. Failure of the concessionaire to complete all punch list items within the time set forth in CA for any reason, other than conditions constituting *force majeure* or for reasons solely attributable to NHAI, shall entitle NHAI to terminate the Agreement.

It was seen that out of 94 projects reviewed, PCC was issued in 33 completed projects with punch list items. Projects/punch list items were not completed within the stipulated period of 90/120 days. Action to levy damages of ₹ 69.42 crore in 13 projects was not taken by NHAI which also did not issue termination notice for delay beyond 90/120 days of cure period as per CA. (Annexure 6).

MoRTH replied (September 2014) that a penalty of ₹ 56 lakh had been recovered in three<sup>15</sup> projects and penalty could not be levied in the Lalitpur-Jhansi project and Jalandhar-Amritsar project as the punch list items could not be completed due to non-availability of required land. In the case of Bara-Orai project it was replied that the Concessionaire had completed the punch list items, though beyond the stipulated period. As there was no provision of penalty in CA, penalty amounting to ₹ 19.38 crore was not levied. In seven cases the decision of levy of damages is under consideration by NHAI.

The fact remains that NHAI needed to critically review the existing monitoring mechanism of implementation of projects with specific reference to the provision and levy of penalty on delinquent and defaulting concessionaires.

# 5.7 Extra burden amounting to ₹ 161.67 crore on road users due to partial tolling on incomplete stretch

The MCA issued in November 2005 allowed collection of toll after 75 per cent length of the project highway was complete. However for PPP projects approved till then, the concessionaire was entitled to collect fees from users of project highway only after completing at least 50 km of continuous stretch. CA further provided that MoRTH would issue fee notification within 90 days of probable completion date of continuous stretch of at least 50 km and/or the commercial operating date (COD) of the project highway. In the event of issuing PCC, the concessionaire is also allowed to start collecting toll on the partially completed stretch. However, as per provisions of CA, in case the concessionaire defaults in completing the entire project highway within the schedule project completion date, any fee notification issued earlier for levy of toll on the part completion, would be de-notified immediately. Fresh fee notification would be issued only after completion of the entire project highway.

In four <sup>16</sup> out of 94 projects reviewed by Audit, where the condition of 50 km continuous stretch was applicable, it was observed that despite the projects not being completed on scheduled completion dates, the earlier fee notification was not de-notified as per the clauses of CA and the concessionaires were allowed to collect toll amounting to ₹161.67 crore on partially completed stretches. (Annexure 7)

MoRTH has stated (September 2014) in the case of Lucknow-Sitapur and Meerut-Muzaffarnagar projects, EOTs were granted to concessionaires for various reasons like not handing over land, etc. and therefore allowing tolling on a partial stretch was regular. In the case of Jaipur-Mahua, NHAI stated that EOT was granted and the amount of partial toll collection kept in a separate sub account i.e. damages payment sub-account based on the supplementary agreement dated 09 September 2009.

<sup>&</sup>lt;sup>15</sup> (i) Meerut-Mujaffarnagar (₹0.14 crore) (ii) Mahua-Jaipur (₹0.14 crore) (iii) Lucknow-Sitapur (₹0.28 crore)

<sup>&</sup>lt;sup>16</sup> (i) Meerut-Muzaffarnagar (ii) Mahua-Jaipur (iii) Lucknow-Sitapur (iv) Vadape-Gonde

The reply of MoRTH is not acceptable as partial tolling was in contravention to CA (clause 6.1) and resulted in undue benefit to the concessionaire. Further, the reply also needs to be viewed against the fact that toll collection on a partially completed stretch is an incentive to the concessionaire to complete the project highway within the scheduled time and nowhere in the CAs, it is mentioned that partial tolling is allowed even if the projects get delayed. NHAI has accepted that there is no provision in CA for granting EOT. Thus, allowing the concessionaire to collect toll in such cases was not only a violation of the CAs but places avoidable burden on road users.

# 5.8 Non-transfer of toll to "Withheld Amount Account"

Article 31.3.1A of the CAs for 6-laning projects provides that in case the concessionaire defaults in achieving the milestones, the toll collected from the day following the date of such defaulted milestone will be deposited in an escrow account (withheld amount account) and such withheld amount will not be released till such time that the defaulted milestones have been achieved and the project milestone falling immediately after the latest defaulted milestone is achieved in time. It further states that interest accrued on the withheld amount shall be disbursed to NHAI under all circumstances.

Out of 20 number of 6-laning projects examined in Audit, in three projects toll amounting to ₹ 902.89 crore as detailed below was not withheld or was prematurely released to the concessionaire.

In case of Delhi-Agra project, no such provision was included in CA.

TABLE 10: Non-transfer of toll to withheld amount account

Project	Toll not withheld (₹ in crore)	Audit Observations
Gurgaon- Jaipur	459.87	As per Schedule G of CA, concessionaire had to achieve project milestone II within 730 days (2 April 2011) from Appointed Date and scheduled 6-laning date on 912 <sup>th</sup> day (i.e. 2 October 2011) from the Appointed Date. Project milestone II had not been achieved till August 2013 though the scheduled 6-laning date (i.e. 2 October 2011) was over. As per CA, if the project milestones were not achieved in time, the toll collected was to be withheld in separate sub escrow account. However, NHAI did not withhold an amount of ₹ 459.87 crore collected by the concessionaire, M/s. Pink City Expressways Private Ltd. NHAI also sustained loss of interest that would have been earned had the amount been withheld as per Clause 31 of CA.  MoRTH stated (September 2014) that the concessionaire is eligible for further EOT as entire work front is not available. The EOT for COD is under consideration of NHAI.  MoRTH reply is not acceptable because as per article 31.3.1A of the CA, in case the Concessionaire defaults in achieving the milestones, the toll collected by him from the day following the date of such defaulted milestone will be deposited in an Escrow Account (Withheld Amount Account) and such withheld amount will not be released till such time that the defaulted milestones have been achieved and the project milestone falling immediately after the latest defaulted milestone have been achieved in time.

Project	Toll not withheld (₹ in crore)	Audit Observations
Varanasi- Aurangabad	181.24	As per CA, the concessionaire had to achieve project milestone I within 255 days (i.e. on 23 May 2012) from the Appointed Date. Though the concessionaire, M/s. SOMA ISOLUX Varanasi Aurangabad Tollway Private Ltd., had not achieved Milestone-I as of October 2012, NHAI had not withheld toll collection of ₹ 181.25 crore (up to April 2013). NHAI also lost interest on the said amount to which it was entitled. MoRTH in their reply stated (September 2014) that at present the matter is sub-judice.
Panipat- Jalandhar	261.78	Article 31.3.1A (iv) of the CA stipulated that withheld amount of toll can be released only if the project milestone falling immediately after the last defaulted milestone is achieved by the concessionaire. On not achieving the second milestone by the concessionaire, considering recommendation of IE/PD/RO NHAI rescheduled the date of second milestone and granted extension of time for 219 days (i.e. upto 16 December 2011) to the concessionaire. Though, NHAI initially withheld an amount of ₹ 261.78 crore collected as toll for the period from 17 December 2011 to March 2013 due to non achieving of second milestones by 16 December 2011, the same was released (March 2013) to the concessionaire (M/s. Soma Isolux NH One Tollway Private Ltd.), even as the third and final milestone (i.e. immediately following the second milestone) which was due for completion on 31 March 2013, was also not achieved. Apart from undue benefit to the concessionaire, NHAI also lost interest on the said amount.  MoRTH stated (September 2014) that the withheld toll was released once the EOT is granted.  Audit in this regard observed that there is no clause for granting EOT in the concession agreement and secondly, MoRTH has not commented on the Article 31.3.1A(iv) of CA which provides that withheld amount of toll can be released only if the project milestone falling immediately after the last defaulted milestone (i.e. third / final milestone) is achieved by the concessionaire. The third/final milestone was scheduled to be achieved on or before 30 March 2014. Thus, release of withheld amount for the period from 17-12-2011 to March 2013 was in contravention to CA.
Delhi-Agra	NA	The appointed date was fixed as 16 October 2012 at the request of concessionaire (January and February 2012) by signing inventory of 80 per cent of land. Concessionaire made a false declaration of mobilising at site whereas no machinery and plant were mobilised at two of the construction camps at km 54.000 and 170.000. There was no record of any action taken by NHAI against the concessionaire for failure to mobilise and commence construction of the project. Concessionaire claimed (June 2013) that only five per cent of land was available for upgradation. Non mobilisation and not obtaining various clearances viz. tree cutting/NOC from Pollution Control Board were also pending due to which work could not be started. Progress of work against the first milestone due on 27 June 2013 was 'nil'.  In this project, clause 31.3.1A, available in other 17 6-laning CA's for withholding the toll collection in case of failure to achieve milestones, was deleted from CA. By the end of August 2013, the concessionaire had collected toll amounting to ₹ 120 crore and utilised an amount of ₹ 78.32 crore in investment in liquid funds.  MoRTH stated (September 2014) that the matter is under examination.
TOTAL	902.89	

 $<sup>^{17}\,</sup>$  For example Pune-Satara, Panipat-Jalandhar, Gurgaon-Kotputli-Jaipur and Varanasi-Aurangabad

It was not possible to ascertain details regarding crediting the amount of interest on the withheld amount to NHAI, as there was no record in support, in NHAI.

The reply ignores the fact that in spite of numerous defaults on their part, concessionaires were allowed to collect toll on such roads which amounted to users being charged for roads which were not in a state of full operation and hence without improvement in travel quality.

Further, in the 'Exit Conference' held on 22 July 2014 with the MoRTH and NHAI, Member (Finance), NHAI accepted the audit observation. Secretary, MoRTH and Additional Secretary & Financial Advisor, MoRTH advised NHAI to take a serious view in the case of Delhi-Agra project.

## 5.9 Change of Scope (CoS)

Article 16.1 of MCA provides that NHAI may require at any time during execution of work, to execute additional works and services which are not included in the scope of the project. Similarly, the concessionaire may request NHAI for change of scope, for providing safer and improved services to users. Such changes of scope are to be made within the provisions of CA. All the costs arising out of any change of scope during the Concession period are to be borne by the concessionaire subject to ceiling, limited to certain *per cent* of the project cost (as mentioned in the clauses of CA) and any excess expenditure is to be reimbursed by NHAI. Where NHAI/concessionaire incur any expenditure on change of scope (CoS) due to site conditions, public demand and VVIP reference, such CoS is unavoidable.

Out of 94 projects examined, CoS was observed in 23 projects (Annexure 8). The financial impact of positive and negative  $CoS^{18}$  (net of ceiling prescribed in the respective CAs) works out to  $\stackrel{?}{\underset{?}{|}}$  856.80 crore in 22 projects and  $\stackrel{?}{\underset{?}{|}}$  37.72 crore in 6 projects, respectively.

Reasons for positive CoS amounting to ₹856.80 crore were as under:

- Due to site conditions ₹ 59.65 crore (in 6 projects)<sup>19</sup>
- Due to public demand and VVIP reference ₹134.62 crore (in 11 projects)<sup>20</sup>

<sup>&</sup>lt;sup>18</sup> Postive CoS means additional works and services is required which were not included in the scope of work and negative CoS means reduction in scope of works and services to be executed.

<sup>19 (1)</sup> Badarpur elevated highway ₹3.54 crore (2) MP/MH border-Nagpur including construction of Kamptee Kanhan-Nagpur Bypass ₹0.97 crore, (3) Meerut-Muzaffarnagar ₹9.45 crore, (4) Indore- Jambua ₹7.93 crore, (5) Padalur-Trichy ₹37.41 crore, (6) Silk Board Junction ₹0.35 crore.

<sup>20 1)</sup> Gorakhpur Bypass ₹ 12.49 crore, (2) Jalandhar-Amritsar ₹ 11.58 crore, (3) Bara-Orai ₹ 0.38 crore, (4) Panipat-Jalandhar ₹ 33.65 crore, (5) Nagpur-Betul ₹ 12.47 crore, (6) Pimpalgaon-Gonde ₹ 2.12 crore, (7) MP border-Dhule ₹ 39.88 crore, (8) Madurai-Tuticorin ₹ 18.41 crore, (9) Silk Board Junction to electronic city ₹ 0.49 crore, (10) Islam Nagar-Kadtal ₹ 0.42 crore and (11) Kadtal-Armoor ₹ 2.73 crore.

- Due to DPR proposal not included in CA ₹ 334.73 crore (in 2 projects)<sup>21</sup>
- Due to Faulty DPR ₹ 327.80 crore (in 5 projects)<sup>22</sup>

In the case of negative CoS (mostly due to site conditions and public resistance), NHAI needed to recover / adjust an amount of ₹ 37.72 crore<sup>23</sup> from concessionaire details of which were awaited from NHAI.

MoRTH stated (September 2014) that necessary follow-up action to make the DPR realistic is being taken by NHAI. MoRTH further stated that increasing the amount of performance BG of the DPR consultant is under consideration so that adequate penalties could be levied in case of defective DPRs.

# 5.10 Cost of Utility Shifting

As per Article 11.2 of MCA, the shifting of utility work like electricity lines, water pipe lines, telephone lines etc., shall be carried by the concessionaire, subject to applicable laws and with the assistance of NHAI. Based on the estimates prepared by the respective State Government agencies, the work is got done by concessionaire and the cost of work is reimbursed by NHAI to the concessionaire. Audit examination revealed wide variations between the cost estimated for such shifting by the DPR/FR consultant and the actual cost incurred by concessionaires.

Out of the 94 projects reviewed in Audit, five projects were terminated/under termination while appointed date was not declared in four projects (March 2014). In 71 out of the remaining 85 projects, where work of 'utility shifting' had progressed sufficiently for actual costs to be available, such variation ranged from 2.34 *per cent* (Aurang-Saraipalli) to 2831.43 *per cent* (Zirakpur-Parwanoo) (Annexure 9). Of these 71 projects, in 34 projects, the variation was more than 100 *per cent*. Audit is of the view that instead of reimbursing the actual cost to the concessionaire, the TPC for the project itself should include the estimated cost of utility shifting too, in order to avoid large outgo and vast variation between estimated and actual cost of execution.

The issue was discussed in the 'Exit Conference' held with MoRTH and NHAI on 22 July 2014, where it was stated that follow up action is being taken by NHAI. It was agreed that the required utility shifting in DPR should be worked out on realistic basis and TPC of the project should also include the estimates of utility shifting at the time of bidding on the risk and cost of the concessionaire.

22 1) Zhirakpur-Parwanoo ₹ 159.53 crore, (2) Gurgaon-Jaipur ₹ 101.41 crore, (3) Vadape-Gonde ₹ 56.54 crore, (4) Pune-Solapur ₹ 9.5 crore and (5) Silk Board junction to electronic city ₹ 0.82 crore.

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<sup>&</sup>lt;sup>21</sup> (1) Jaipur-Deoli( $\nearrow$  7.4 crore) and 2) Pune-Satara ( $\nearrow$  327.33 crore).

<sup>23 (1)</sup> Meerut-Muzaffarnagar ₹ 3.46 crore,(2) Jaipur-Mahua ₹ 0.89 crore, (3) Bara-Orai ₹ 4.54 crore, (4) Madurai-Tuticorin ₹ 17.44 crore, (5) Islamnagar-Kadtal ₹ 7.62 crore and (6) Kadtal-Armoor ₹ 3.77 crore.

**Recommendation** 7: NHAI may increase the effectiveness of its Land Acquisition Units so that land can be handed over within the scheduled time and projects can also be completed without delay.

**Recommendation 8:** NHAI may consider including the estimated cost of utility shifting in the TPC for the project itself rather than reimbursing the cost of execution to the concessionaire in order to avoid large variations.

# **Revenue from Toll**

### **6.1** Non-realization of toll revenue

As per Rule 3(2) of NH Fee Rules 2008, NHAI is required to commence collection of toll within 45 days from the date of issue of provisional completion certificate or issue of notification, whichever is later. NHAI circular dated 16 September 2002 clearly specified the need for advance planning for levy of toll fee and required action to be initiated for fee notification at least 120 days prior to likely date of completion of the project.

In BOT (Annuity) projects as the toll rights vest in NHAI, it is imperative that to avoid toll revenue loss, toll collection should start immediately after project completion. Audit, however, noticed delays in commencement of toll collection in annuity projects either due to delay in achieving Commercial Operation Date (COD) or due to delay in issue of toll notification by MoRTH. This delay resulted in non-realization of estimated revenue of ₹ 430.84 crore, as discussed below:

Out of 20 selected annuity projects, six projects were completed and were eligible for toll collection. Audit scrutiny of these projects revealed as under:

- In 6 Annuity projects<sup>24</sup>, delay from scheduled date of completion (COD) to actual date of PCC ranged from 101 days to 906 days which resulted in NHAI forgoing toll revenue of ₹ 259.47 crore.
- Delay in issue of toll notification, after the date of PCC ranged from 36 days to 595 days which resulted in forgoing of further toll revenue of ₹157.65 crore.
- In 3 annuity projects<sup>25</sup> even after toll notification, delays were noticed ranging from 51 days (Jhansi-Lalitpur) to 214 days (Kosi Bridge), resulting in forgoing of toll revenue of ₹ 13.72 crore.

MoRTH in its reply accepted (September 2014) the delay in toll collection and submitted that such delays were mainly due to non fulfilment of conditions precedent (i.e. handing over of land, forest clearance, etc.) on the part of NHAI.

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<sup>&</sup>lt;sup>24</sup> Islam Nagar-Kadtal 101 days, (ii) Maharashtra-AP Border (package 6) 233 days, (iii) Jhansi-Lalitpur 305 days, (iv) Kosi Bridge Project 674 days (v) Bara-Orai 807 days, and (vi) Gorakhpur Bypass 906 days.

<sup>&</sup>lt;sup>25</sup> (i) Jhansi-Lalitpur, (ii) Maharashtra-AP Border pkg 6, (150 days) and (iii) Kosi Bridge (214 days).

# 6.2 Short recovery of ₹ 29.79 crore as Additional Concession Fee

Clause 26.2.1 of CA provides that the concessionaire shall pay to NHAI a percentage of total realisable fee as additional concession fee to be calculated as specified in the respective CAs in case of 6-laning projects. Further, clause 26.3 of respective CA provides that for calculating the additional concession fee, the total realisable fee shall be the maximum of the two: (a) the actual PCU or (b) specified number of PCU. Concession fee of ₹ 29.79 crore was short realised in three 6-laning projects as per details given in Table 11.

TABLE 11: Short recovery of additional concession fe	e
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Name of the project	No. of PCU actually taken	PCU required to be taken	Period of short remittance	Amount (₹ in crore)	MoRTH reply
Badarpur Elevated Highway  (M/s Badarpur Faridabad Tollway Ltd.)	Lesser than the PCU agreed in CA - 68,300	68,300 PCU	Nov-2010 to Oct- 2011	2.92	MoRTH stated (September 2014) that notice for recovery has been issued.
Surat-Dahisar (IRB Surat Dahisar Tollway Private Ltd.)	Lesser than the PCU agreed in CA - 51,375	51,375 PCU	2009-10 to 2011-12	12.87	MoRTH stated (September 2014) that action for recovery will be taken based on the recommendations of IE.
Gurgaon-Jaipur (M/s Pink City Expressway Pvt. Ltd.)	Unauthorised discounts were given to multi axle vehicles and local taxis/Trucks and Buses, which resulted in short realisation of toll fee, of which NHAI's share worked out to ₹ 14 crore			14.00	MoRTH stated that toll was charged by the concessionaire as per the provisions of the CA; however, the matter is under further examination.
Total				29.79	

# 6.3 Toll revenue of ₹ 303.62 crore diverted as investment rather than being spent on construction work

**6.3.1 Delhi-Agra:** LOA for the project was issued to successful bidder i.e. M/s Reliance Infrastructure Ltd. on 19 May 2010. M/s Reliance Infrastructure Ltd. promoted and constituted SPV (i.e. the concessionaire) in the name of M/s DA Toll Road Private Ltd. and the certificate for incorporation was issued on 26 May 2010. The escrow agreement was entered on 01 February 2011 and the appointed date for the project was declared as 16 October 2012 at the request of the concessionaire, who started toll collection from the appointed date as per CA provisions. There was no progress of the project as on 27 June 2013 (1<sup>st</sup> milestone).

Article 31.3.1 of CA as well as the escrow agreement provides that withdrawals from escrow account during the concession period can only be as per order of preference specified in CA such as taxes due, construction of the project highway, payment of concession fee etc. and surplus available, if any, can be utilised as per the instructions of Concessionaire.

The concessionaire invested an amount of ₹ 78.32 crore from the toll collection during the period 16 October 2012 to 21 February 2013 and 01 April 2013 to 31 May 2013 in Reliance Liquid Funds. The status of investment in mutual fund during 22 February 2013 to 31 March 2013 could not be ascertained in the absence of escrow account statement at the PIU.

Escrow agreement provides for investment of only surplus fund and not the entire toll collected.

Concessionaire collected toll of ₹ 120 crore till end of August 2013 and has been utilizing the same for its ancillary objects rather than focusing of project construction. NHAI's action to declare the Appointed Date based on the request of the concessionaire even though environment clearance as well as NOC from the Pollution Control Board was pending was premature. NHAI's action allowed the concessionaire to begin toll collection without making any progress on the project highway. This has subjected the road users to payment of toll without the corresponding benefit of improved travelling conditions.

**6.3.2 Pune-Satara:** The concessionaire, M/s PS Toll Pvt. Ltd. was to complete the construction activities of the Pune-Satara project in accordance with the project completion schedule of CA. The concessionaire failed to achieve project milestone – I (30 March 2011) as well as project milestone – II (1 October 2011) even after 90 days grace period from the respective dates assigned to each of the aforesaid milestones. This was so despite the fact that NHAI had handed over 85.84 *per cent* of unencumbered land on Appointed Date. The Concessionaire commenced collection of toll from Appointed Date and continued to collect toll though it failed to achieve the I<sup>st</sup> or II<sup>nd</sup> milestone or to commence work as per CA.

As per article 31.3.1 of the CA as well as clause 4.1 of escrow agreement (August 2010) with AXIS Bank, any withdrawals from Escrow Account during the concession period could only be utilised in order of preference specified in CA such as taxes due, construction of the project highway, payment of concession fee etc. and surplus available, if any, can be utilised as per the instructions of concessionaire. The concessionaire collected toll from the date of appointment i.e. October 2010 to March 2014 amounting to ₹ 542.17 crore out of which ₹ 225.30 crore (up to 8 August 2012) were invested in Reliance Liquid Fund /Reliance Money Manager Fund which was in contravention of article 31.3.1 of CA and clause 4.1 of Escrow Agreement. Even after lapse of 42 months, only 64.99 per cent of the project was completed up to March, 2014 and despite payment of toll charges, road users were deprived of benefit of 6-laning of the project.

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In the 'Exit Conference' held with MoRTH and NHAI on 22 July 2014, NHAI admitted that the audit observations are factual.

MoRTH replied (September 2014) that the discrepancies in the escrow account have been streamlined. However, no reply has been provided by MoRTH on the diversion of toll revenue.

**Recommendation 9:** NHAI would need to initiate timely action for issue of fee notification and plan in advance for levy of toll fee to avoid loss on account of delayed collection of toll.

**Recommendation 10**: NHAI needs to critically review the system of declaration of Appointed Date and also design a mechanism to ensure that the concessionaire does not derive undue advantage of the funds at its disposal by diverting toll revenue into financial instruments rather than investing them for approved project purposes.

# **Monitoring of Projects**

7.1 Primary responsibility for timely and efficient execution of NHAI projects under PPP mode ensuring requisite quality of work rests with the Concessionaires, independent engineers (IE), safety consultants etc. NHAI is responsible for land acquisition and follow up of fulfilment of conditions precedent by it (NHAI) as well as by the Concessionaire.

Examination of monthly progress reports (MPRs) submitted by the IE/Safety Consultant, initiating action in case of breach, if any, of CA by the concessionaire/IE, etc. in Audit revealed deficiencies in monitoring of implementation of PPP including issues of non-adherence of GoI directions by NHAI impeding effective monitoring, which are discussed in succeeding paragraphs.

# 7.2 Non-compliance by MoRTH / NHAI of Government's decision for creating independent cadre for NHAI

On NHAI's request for relaxation of Department of Personnel & Training (DoPT), Ministry of Personnel, Public Grievances & Pensions, Government of India guidelines in respect of officers working in NHAI on deputation, DoPT vide office memorandum dated 20 November 2009, conveyed the following decision to MoRTH:

- (i) MoRTH would ensure that within two years, the structure of NHAI would be reformed to provide for its own independent cadre through direct recruitment and absorption of deputationists. The milestone for achieving the goal would be identified by MoRTH and sent through DoPT to the Hon'ble Prime Minister, for information.
- (ii) As a special case, MoRTH will be permitted to retain officers already on deputation even beyond the prescribed period of five years, till October 2012. During this period, extensions shall be given after close scrutiny, to officers selected by a committee headed by Secretary, MoRTH and after approval of Minister, MoRTH.

Subsequent to the above decision, when NHAI forwarded (June 2011) a proposal regarding extension of deputation tenure in respect of 94 manager level officers, MoRTH stated (August 2011) that all recruitments in NHAI have been on deputation basis from PWDs /other government agencies which resulted in NHAI's manpower dwindling to dangerously low level and created a paralysis in the organisation in taking fresh recruitments. MoRTH, therefore, directed (August 2011) that NHAI should start the process of recruitment immediately and give full details of its vacancies and action plan to fill the same, in three months.

Examination in Audit revealed that substantial manpower (officers and officials) of NHAI was on deputation from various government departments. The ratio of persons on deputation to regular employees was 83:17 as at 31 March 2013. This showed that there was a deficiency in efforts of NHAI to comply with the decisions taken by the GoI.

MoRTH stated (September 2014) that NHAI has issues regarding continuity as much of the organisational memory is lost when personnel taken on deputation revert to their parent department/organisation. Considering that the manpower requirements during construction period and maintenance period of road projects substantially differ, NHAI constituting a permanent cadre has certain limitations. However, MoRTH stated that certain steps have been taken by NHAI for creating its own cadre.

# 7.3 Need to monitor project wise profitability:

NHAI does not maintain project wise accounts which are essential to assess the profitability of a particular project. As such, it was not in a position to assess whether its decisions to go in for improvements to particular stretches were economically viable and profitable. NHAI was also not in a position to provide accurate information to its senior management or MoRTH which could be used while preparing future plans or to assess justification for revenue sharing. This could be observed, as an illustration, from the annuity project of Nagpur-Betul which has already been discussed in Para 4.2.1.1. In this project the annual annuity payment amounted to ₹ 581.60 crore as against projected revenue of ₹ 58 crore which clearly brings out the fact that the project was not financially viable. Due to non-availability of such data, no lessons can be learnt from projects already commissioned and it precludes informed decisions by the sanctioning authority.

MoRTH stated (September 2014) that NHAI is maintaining project wise account in 'Project Financial Management System' (e-PFMS). MoRTH reply is not acceptable as it was noticed that e-PFMS used for accounting is not fully exploited /utilised by NHAI. In e-PFMS there is an option of preparing project wise 'Comprehensive ledger / Monthly Progress Expenditure Statement' but the relevant data are not entered into the program on a regular basis.

# 7.4 Appointment of Independent Consultant / Independent Engineer (IC/IE)

Article 23 of MCA stipulates that NHAI shall appoint a consulting engineering firm, to act as Independent Consultant / Independent Engineer (IC/IE), from a panel of ten firms or bodies corporate, formed by NHAI in accordance with the selection criteria set forth in MCA. Appointment of IE/IC was to be made not later than the specified period (generally 90 days, from the date of signing of CA). Under PPP mode of execution, NHAI did not exercise any direct supervision of the work executed by the concessionaires, but it relied on the IE/IC to carry out such supervision, which underlines the importance of IC/IE in project execution.

- **7.4.1** Audit noticed delays that ranged from six days (End of Durg Bypass project) to 725 days (Delhi-Agra project) in appointment of IC/IE, in 84 out of 94 projects reviewed (**Annexure 10**). Appointment of IE was made in time in only five projects and in five projects information was not made available by NHAI.
- 7.4.2 MoRTH provided (September 2014) different reasons for delay in appointment of IC/IE, such as NHAI not receiving adequate response to RFQ/RFP, non availability of nominated individuals for various positions of the selected bidder leading to delays in award of consultancy contracts, etc. Further, MoRTH also stated that in all such cases where delay has occurred in appointment of IC/IE, invariably the Project Directors is appointed as the engineer for the project and it is ensured that the monitoring of the project work is not affected.
- 7.4.3 The reply does not deny the fact that delayed appointment of IEs would impact adversely the monitoring of projects. Contention of MoRTH that during the period of finalising the appointment of IC/IE, the Project Directors (PD) of respective PIUs were given additional charge of the IC/IE, needs to be viewed against the background that a PD usually has regional jurisdiction with several projects on hand and hence he cannot be expected to do justice to this work besides his regular duties. Delay in appointment of IEs thus deprived the projects of the specialised services of an IE, particularly when these were required at the stage of review of drawings (an essential task before the construction) and supervision of construction work in initial stages.

# 7.5 Appointment of Safety Consultant

Article 18.1.1 of MCA provides that the concessionaire shall comply with the relevant provisions of CA, applicable laws and permits and conform to 'Good Industry Practice' for securing safety of road users. The concessionaire is also required to develop, implement and administer a surveillance and safety programme for providing safe environment on the project Highway and comply with the safety requirements set forth in the relevant schedules of CA.

7.5.1 Article 18.1.2 of MCA provides for appointment of an experienced and qualified firm or organization as the Safety Consultant (SC). The SC is responsible for carrying out safety audit of the project highway and is required to take all other actions necessary for securing compliance with safety requirements as per Schedule 'L' of MCA. Para 4.1 of Schedule 'L' stipulated that appointment of SC is required to be made not later than 90 days from date of signing of CA. Audit observed that SC was appointed in time in only one project (Yamunanagar-Panchkula). Delays ranging from 34 days (Farakka-Raiganj) to 1408 days (Indore-Jhabua) (Annexure 10) in appointment of SC were noticed in 61 out of 94 projects reviewed in Audit. There was no provision in the CA for appointment of SC in 31 projects and out of the remaining 63 projects examined in Audit, information was not made available in case of one project by NHAI till March 2014. Thus due to

delay in appointment of SC, safety audits could not be conducted and there was no assurance that safety measures in the construction of projects were not compromised.

**7.5.2** MoRTH while admitting the audit observation stated (September 2014) that keeping in view the delay in appointment of SC, it was decided in July 2012 to prepare a panel valid for a year, to be renewed every year. It took about eight to 10 months to prepare documents and finalize the empanelment process. Bids were received in April 2013 and empanelment was completed in May 2013. NHAI further stated that henceforward there may not be any delay in appointment of SC for future projects.

# 7.6 Premature release of grant of ₹ 769.53 crore

In the case of BOT (Toll) projects, equity support/grant (VGF) shall be due and payable to the concessionaire after the latter had expended the prescribed *percentage* of Equity. Article 25 of MCA provides for release of grant in instalments after expending 80/100 *per cent* of equity which shall be disbursed proportionately along with the loan funds thereafter remaining to be disbursed by the Senior Lenders under the Financing Agreements. The concessionaire should also not be in material breach of CA.

In four out of selected 94 projects reviewed in Audit, premature release of grant amounting to ₹ 769.53 crore was noticed (details are given in Table 12). The premature/irregular release was on account of considering amount of advance to EPC contractors as expenditure and due to error in working out the pro rata amount of loan remaining to be released while calculating the amount of grant. These cases are detailed below:-

**TABLE 12: Premature release of grant** 

Name of the project and TPC as per CA	Condition as per CA for release of equity support	Status of adherence to conditions by concessionaire	Amount of grant released prematurely	Remarks
Lucknow-Sitapur (₹ 322 crore)	After expending 80 per cent of Equity	Till June 2010 concessionaire had contributed and expended ₹119.33 crore out of own funds. After excluding advance of ₹ 39.27 crore to EPC contractor, the equity expended works out to 67.09 per cent only.	68.00	Concessionaire had given ₹.39.27 crore as advance to the EPC contractor which cannot be termed as amount expended on the project. Thus release of grant of ₹.68 crore by NHAI in January 2010 to the concessionaire (M/s Lucknow Sitapur Expressway Ltd.) was premature.
Kadapa-Mydukur- Kurnool	After expending of 100 per	As at 31 March 2012, the concessionaire infused Equity capital of only Rs. 19 lakh.	400.01	By November 2012, NHAI had released grant of ₹ 400.01 crore. As the

Name of the second	Can ditt		A C		
Name of the project and TPC as per CA	Condition as per CA	Status of adherence to	Amount of grant	Remarks	
	for release of equity	conditions by concessionaire	released		
	support		prematurely (₹ in crore)		
(₹ 1585 crore)	cent of Equity	convertible debentures (CD) bearing interest @ 14 % p.a. of ₹ 131.03 crore and premium on the shares of ₹ 75.77 crore were treated as Equity by NHAI. As no specific time was fixed for conversion of CDs into equity and as the CDs were interest bearing, they were ineligible to be treated as equity capital.		concessionaire had not infused equity as required by the CA, the entire amount of ₹ 400.01 crore released so far by NHAI had become irregular/excess release of VGF.	
Jaipur-Tonk-Deoli (₹ 792.06 crore)	After expending 100 per cent of Equity	The concessionaire had given mobilisation advance of ₹ 148.50 crore to EPC contractor (related party) and its holding company. Records revealed that mobilisation advance of ₹ 22.03 crore and ₹ 1.55 crore remained unadjusted against the work done by the EPC contractor as on September 2012 and March 2013 respectively.	284.58	As per CA, the concessionaire was required to expend 100 per cent equity before release of grant. Grant amounting to ₹ 284.58 crore was prematurely released by NHAI in November 2012 to the concessionaire by considering the unadjusted amount of mobilization advance as expenditure on the project.	
MP/MH Border- Nagpur including construction of Kamptee-Kanhan and Nagpur Bypass (₹ 1170.52 crore)	After expending 100 per cent of Equity	The first tranche of grant of ₹ 35.31 crore released in October, 2010 was worked out by NHAI without deducting the first instalment of loan of ₹ 50 crore already disbursed by the lender to the concessionaire, M/s Oriental Structural Engineers Ltd.	16.94	As per CA, the concessionaire was required to expend 100 per cent equity before release of grant, which was to be disbursed in proportion to the loan funds thereafter remaining to be disbursed by the senior lenders under the financing agreements. Accordingly, as of October 2010 grant of ₹ 18.37 crore was eligible to be released. However, NHAI released grant of ₹ 35.31 crore which led to premature release of grant by ₹ 16.94 crore.	
		TOTAL	769.53		

It is evident from the above that due diligence was deficient in release of grant by NHAI to concessionaires.

### MoRTH replied (September 2014):-

- In the case of Lucknow-Sitapur and Jaipur-Tonk-Deoli, mobilisation advance should be treated as part of project expenditure. The reply of the MoRTH is not acceptable as in both these cases, the EPC contractor was a member of the consortium/Joint venture of the SPV. This JV then infused funds into the SPV on account of equity. This was then subsequently, released by the SPV to the EPC contractor (i.e. member of consortium) as mobilisation advance. The amount of mobilisation advance was not spent by the EPC contractor till the date of release of grant. Therefore, the mobilisation advance could not be assumed/treated as amount 'expended on the project'.
- In the case of Kadapa-Mydukur-Kurnool each tranche of grant was paid by NHAI to the Concessionaire after recommendations of IE only, hence grant is not paid prematurely. However, the Management has not replied on the issue relating to convertible debenture treated as equity.
- In the case of MP/MH Border-Nagpur including construction of Kamptee-Kanhan and Nagpur bypass, the grant was released proportionately based on the loan funds disbursed by lenders to the concessionaire. Reply is not based on facts as pointed out by Audit. Article 25 of MCA provides for release of grant in instalments after expending 80/100 per cent of equity which shall be disbursed proportionately along with the loan funds thereafter remaining to be disbursed by the Senior Lenders under the Financing Agreements. The first tranche of grant was worked out without deducting the first instalment of loan already released by the lender and before expending 100 per cent equity.

# 7.7 Non-levy of Damages amounting to ₹ 67.21 crore due to non-maintenance of Project Highway by the Concessionaire

Article 17.1 of the MCA (2009) provides that the concessionaire shall operate and maintain the Project Highway in accordance with CA either by itself or through O&M contractor. Further, Article 17.8.1 of MCA provides that in the event, the concessionaire fails to repair or rectify any defect or deficiency set forth in the maintenance requirement within the period specified therein, it shall be deemed to be a breach of CA and NHAI shall be entitled to recover damages, to be calculated and paid for each day of delay until the breach is cured, at higher of (a) 0.5 per cent of Average Daily fee (in CAs which predate the MCA 2006 this is replaced by ₹ 10000) and (b) 0.1 per cent of the cost of such repair or rectification, as estimated by IE. Recovery of such damages is without prejudice to the right of NHAI under CA, including the right of termination thereof. Audit examination revealed that in five projects (where NHAI provided the required information), an amount of ₹ 67.21 crore stood recoverable for non-maintenance of the project highways by the concessionaires as detailed in Table13:

TABLE 13: Details of damages for not performing O&M by the concessionaire as per CA

S.No	Name of stretch	Damages in ₹ crore	Audit observations
	Jhansi Lalitpur	15.93	Test check of MPRs of August 2012 to October 2012, revealed that IC had pointed out some cases of defects and deficiencies on the project highway, which were not rectified (till October 2012) by the Concessionaire within stipulated period in violation of the CA provisions. Delay in rectifying the defects and deficiencies attracted levy of damages amounting to ₹ 23.64 crore as per provisions of CA. However, the PIU neither pursued the Concessionaire/IC to get the defects rectified within the stipulated time nor levied the applicable damages. Besides, the damages were also not withdrawn directly from the escrow account. NHAI stated (August 2013) that damages were to be charged @ ₹ 10000 per day of default for all the defects taken together. Reply ignores the fact that CA provides for damages for each day of default @ 0.1 per cent of the cost of such defaulted item or ₹ 10000/- whichever is higher. As IE/SC had not worked out the cost of such repair, the damages for each default should have been calculated considering ₹ 10,000 per day of default. Further, while computing the amount of damages in the case of Silk Board Junction to Electronic City, the IE had also adopted the above method adopted by Audit.  MoRTH has not agreed (September 2014) with the method used by Audit for calculating the amount of damages. In this regard it is stated that Audit has used the same methodology for calculation of damages as adopted by IE and accepted by NHAI in the case of Silk Board Junction to Electronic City road project.
2	Gurgaon Jaipur	17.69	IE had issued letters beginning from 23 March 2011 and several reminders to carry out repair & maintenance (R&M) of existing highway. IE vide letter dated 02 May 2011 served a final notice to complete the R & M work within 15 days failing which the works were to be recommended to NHAI for completion by another agency and the cost incurred including damages were recoverable from the concessionaire. IE vide its dated 3 May 2011 estimated ₹ 17.69 crore as cost of outstanding R&M work including damages @ 20 per cent for delay and breach of O&M obligations by the concessionaire. As the concessionaire failed to perform his obligations within time, NHAI called (4 May 2011) bids for the above work. There was nothing on record to show that the repairs & maintenance were carried out or any damages were levied on the concessionaire. MoRTH stated (September 2014) that as the highway was subsequently maintained by the concessionaire, no damages were levied. The reply did not provide any details of the date by which the repairs were completed and also did not explain the reasons for not levying damages on the concessionaire for breach of CA.

S.No	Name of stretch	Damages in ₹ crore	Audit observations
3	Panipat- Jalandhar	5.74	During the period (March 2010 to July 2012), IE conveyed to NHAI on five occasions, of the continuing failure of the concessionaire in maintaining the project highway. Damages for breach of CA conditions, along with penal interest, amounted to ₹ 5.74 crore. NHAI had neither recovered the damages nor did it withdraw the amount directly from the escrow account.
			Ministry has replied that the decision of the Hon'ble Supreme Court of India was given only on 16 May 2014 and the work for completion of the balance stretch would commence soon.
4	Trissur- Angamalli	27.54	IE calculated (August 2013) an amount ₹ 23.26 crore (upto 31 July 2013) towards damages for failure on the part of the concessionaire to maintain the project highway and a cumulative amount of ₹ 27.54 crore upto 31 December 2013. Ministry stated that based on IE's recommendation action was initiated to recover the damages from Escrow Account, however, till date no positive response has been received from the Escrow Banker/Concessionaire.
5	Silk Board Junction - Electronic city	0.31	IE had pointed out (May 2012 to August 2012) failure on the part of Concessionaire to maintain project highway and recommended levy of damages of ₹ 0.31 crore. NHAI imposed a penalty of ₹ 0.31 crore on the Concessionaire.  MoRTH has replied (September 2014) that an amount of ₹ 10.70 lakh has been recovered against the penalty amount.
	TOTAL	67.21	

### 7.8. Non-Setting up of PPP Project Monitoring units

- **7.8.1** The Guidelines, approved by CCI, for Monitoring of Public Private Partnership (PPP) Projects, provide for creation of a two tier mechanism to monitor the performance of PPP projects:
  - A PPP Projects Monitoring Unit (PMU) at the project authority level.
  - A PPP Performance Review Unit (PRU) at the Ministry or State Government level as the case may be.

Based on reports furnished by PPP PMU of NHAI to PPP PRU at MoRTH, the latter was required to send quarterly reports to Planning Commission with a copy to Ministry of Finance. Planning Commission, in consultation with Ministry of Finance, was required to prepare a summary of these reports along with recommendations relating to further action/improvements for being placed before CCI.

**7.8.2** MoRTH stated (September 2014) that all PPP projects are being monitored at the highest level in NHAI as well as MoRTH. The reply needs to be viewed in conjunction

with the reply furnished by NHAI in August 2013 wherein it was stated that the issue of creation of monitoring units was deliberated upon between MoRTH and NHAI and it was decided that NHAI would develop a PPP monitoring module by September 2013. However, with regard to the module and on the question of submission of quarterly reports to the Planning Commission, no additional reply has been given by the Ministry.

**7.8.3** Thus, CCI was not being apprised of the progress as well as deficiencies, if any, in implementation of various projects under NHDP.

### 7.9 Irregular Release of Performance Security of ₹ 14.55 crore

As per Article 37.1.1 (c) of the MCA, if the concessionaire did not achieve the latest outstanding project milestone and continues to be in default for 120 days, the concessionaire would be deemed to be in default and the contract/concession could be terminated by NHAI if such default was not cured in 60 days. Further Article 9.3 of MCA provided that the performance security (PS) would be available for a period of one year from the 'appointed date.' PS could be released earlier upon the concessionaire expending on project construction, a sum that was not less than 20 *per cent* of the total project cost; provided that the concessionaire was not in breach of CA.

Audit examination of the project of 2-laning with paved shoulder of Raibareilly-Allahabad section revealed that while the Concessionaire had not achieved project milestone -II despite elapse of more than eight months from scheduled date (i.e. 13 January 2013), there was nothing on record to show that NHAI had imposed penalty on the concessionaire. Audit further noticed that NHAI released (July 2013) Performance Security of ₹ 14.55 crore to the Concessionaire in contravention of the aforesaid provisions of MCA.

MoRTH replied (September 2014) that performance security was released on 29 July 2013, based on the recommendation of the IE in accordance with the provisions of the Concession Agreement. The reply of MoRTH is not acceptable as concessionaire had not achieved the milestone-II despite lapse of more than eight months from scheduled date. Failure to achieve the project milestone in stipulated period is a breach of contract.

**Recommendation 11:** NHAI needs to ensure that norms for release of grant are consistent across concession agreements. Due diligence needs to be exercised over release of grants to concessionaire to avoid premature release of grant.

**Recommendation 12:** MoRTH/ NHAI needs to urgently set up Performance Review Unit/ Projects Monitoring Units and ensure that the requisite reports are placed before the CCI.

### **Chapter - 8**

### **Conclusion**

In order to reduce dependency on its finances, bring in professional project management practices and improved technology for better quality of construction, GoI had decided to involve private sector participation through BOT (Build Operate and Transfer) mode and all projects from Phase-III onwards have been awarded by NHAI in PPP mode. Audit, however, noticed that execution of projects through PPP mode suffered from deficiencies in planning as well as in implementation. In spite of creation of an institutional framework such as CCI/CCEA, PPPAC and NHAI as the single agency vested with requisite legal and financial powers to ensure speedy progress of road projects, the results of the PPP mode of execution were not satisfactory. The process of identifying and prioritising road projects was opaque and road stretches originally selected for development were replaced with other stretches at later stage without justification.

Though one of the objectives of PPP mode of execution was to reduce dependency on Government finances, the same could not be achieved completely. The funds at the disposal of the NHAI were mostly by way of plough back of toll, sanctions from Central Road Fund and issue of tax free bonds, each of which was a drain on Government resources. NHAI had large quantum of funds at the year-end which it was unable to invest in road projects and instead the same were parked in Fixed Deposits with banks. MoRTH/NHAI failed to achieve the target set for development of 20 km per day.

There was scope for increased transparency and competitive bidding as the projects were restructured by making major changes in initial project parameters and TPC during bidding process without inviting fresh RFQ.

Award of projects was delayed after approval by PPPAC/CCEA/CCI due in turn to procedural delays in NHAI in inviting bids, awarding the work and delay on the part of Concessionaires in formation of SPV, achieving Appointed Date, Financial Closure and fulfilment of conditions precedents. One of the main hurdles was failure of NHAI to acquire land and obtain approval from Government agencies in time.

PPP mode was expected to be user friendly and beneficial to users. Though users were required to pay toll from appointed date in 6-laning projects, they were deprived of the benefit of improved road conditions for long periods in some of the projects despite paying toll. The users would also have to bear the burden of toll for longer periods than justified as in a number of cases, the concession period of the projects was longer which, in turn, was due to non adoption of the volume of traffic/carrying capacity for determining the concession period. Inclusion of structures/roads which were not

warranted by the volume to traffic would also result in unwarranted burden on road users by way of higher rate of toll (2-lane projects) and payment of VGF and annuity out of the public exchequer.

Concessionaires were unduly benefitted due to failure of NHAI in levying damages as provided in concession agreement. Monitoring of the PPP projects was deficient as a PPP Performance Review Unit, as approved by CCI was not established in MoRTH.

Audit did not find a robust mechanism to identify stretches that needed widening. In many cases we noticed that stretches had been taken up for 4/6 laning where the traffic in such stretches did not justify such an investment.

Audit also noticed instances where VGF was being provided whereas the norms did not justify such investments.

(PRASENJIT MUKHERJEE)

Deputy Comptroller and Auditor General and Chairman Audit Board

Countersigned

**New Delhi** 

**New Delhi** 

Dated: 02 December, 2014

Dated: 02 December, 2014

(SHASHI KANT SHARMA)
Comptroller and Auditor General of India

### **ANNEXURES**

Annexure – 1 (Para 5.1, 5.2.2, 5.2.3, 5.3)

# Delays at various stages of approval in fulfilling conditions precedent

Delay in obtaining EC from schedule date	L=K-D	-93	558	-705	-623	NA	287	-1275	328	345
Actual date of obtaining EC	K	30/04/2012	23/07/2012	29/04/2005	3/03/2009	NA	10/07/2012	13/07/2007	20/01/2012	17/08/2012
Delay in obtaining RoB approval from schedule date	J=I-D	0	1230	1618	133	NA*	234	130	464	244
Actual date of obtaining RoB approval	I	8/06/2012	26/05/2014	8/09/2011	29/03/2011	No RoB	18/05/2012	18/05/2011	4/07/2012	8/05/2012
Delay in financial close	Π=Θ-Π	-1	0	107	268	429	55	165	-1	-2
Actual financial close	G	31/07/2012	12/01/2011	20/07/2007	11/08/2011	Not declared as on 31/3/2014	21/11/2011	22/06/2011	25/02/2011	5/09/2011
Delay from scheduled appointed date to actual appointed date	F=E-D	-14	643	2	101	429	295	148	328	504
Actual appointed date	E	18/07/2012	16/10/2012	6/04/2007	25/02/2011	Not declared as on 31/3/2014	18/07/2012	5/06/2011	20/01/2012	23/01/2013
Scheduled appointed date/financial close/ preconstruction activity i.e. RoB and EC.	D	1/08/2012	12/01/2011	4/04/2007	16/11/2010	26/01/2013	27/09/2011	8/01/2011	26/02/2011	7/09/2011
Delay in signing CA from LOA (after 45 days of LOA)	C=A-B	20	13	116	111	87	47	29	99	61
Date of signing CA	В	3/02/2012	16/07/2010	6/10/2006	20/05/2010	30/07/2012	31/03/2011	13/07/2010	30/08/2010	11/03/2011
Date of LOA	А	30/11/2011	19/05/2010	28/04/2006	15/12/2009	20/03/2012	29/12/2010	30/04/2010	21/05/2010	25/11/2010
Name of project		Lucknow- Raibarelly	Delhi- Agra	Gorakhpur Bypass	Ghaziabad- Aligarh	Yamunagar- Panchkula	Raibarelly to Allahabad	Quazigund- Banihal	Nagpur- Betul	Kanpur-Kabrai
z S		1	2	Е	4	S	9	7	8	6

\* NA= Not applicable as per Concession Agreement

Column   C
Actual appointed date appointed appointed appointed appointed appointed appointed appointed appointed close date to appoint appointed
Actual appointed date date appointed date appointed date date date date date date actual appointed date date date date date date date d
Actual appointed financial financial date date date to actual appointed date to actual date date to actual appointed date date date date date date date d
Actual appointed date to actual appointed date to actual appointed date to actual appointed date         Actual close date to actual appointed date         Actual close date to actual appointed date           21/03/2006         -1         20/03/2006           22/06/2006         -1         20/03/2006           22/06/2006         -1         20/03/2006           17/06/2011         153         24/03/2011           23/05/2011         149         23/05/2011           20/08/2010         -1         30/10/2010           28/03/2007         0         14/05/2007           24/10/2006         0         21/04/2009           23/12/2008         -70         23/12/2008           11/05/2009         187         9/04/2009           9/03/2006         1         2/09/2006
Actual Delay from scheduled date to actual appointed date to actual appointed date to actual appointed date 22/06/2006 -1 52/06/2010 0 0 17/06/2011 153 23/05/2011 149 20/08/2010 -1 28/03/2007 0 24/10/2006 0 0 24/10/2008 -70 11/05/2009 187 9/03/2006 1 13/07/2006 45
Actual appointed date date date  E
hed ted notal nota
Scheduled appointed date/financial close/ preconstruction activity i.e. RoB and EC.  22/03/2006 22/06/2006 22/06/2006 15/01/2011 25/12/2010 28/03/2007 12/09/2012 24/10/2006 3/03/2009 5/11/2008 8/03/2006
Delay in signing CA from LOA (after 45 days of LOA)  C=A-B  -6  -6  114  9  108  -2  24  24  125
B 23/09/2005 23/12/2005 23/12/2005 23/12/2005 19/07/2010 22/02/2010 29/09/2006 16/03/2012 27/04/2006 4/09/2008 9/05/2008 9/05/2008
A 27/08/2005 29/08/2005 29/08/2010 30/04/2010 30/12/2009 29/04/2010 30/12/2009 29/04/2010 30/12/2009 29/04/2006 21/02/2012 2/02/2012 2/02/2012 2/02/2008 23/03/2005
Mame of project  MP/MH border- Nagpur including Kamptee Kanhan and Nagpur Mahua-Jaipur Lucknow-Sitapur Jammu - Udhampur Chenani-Nasri Indore-Jhabua- Jhansi-Lalitpur Kiratpur- NerChowk Bara-Orai Badarpur Elevated Highway Panipat – Jalandhar Meerut Meerut Auritsar
No. No. 10 10 10 10 10 10 10 10 10 10 10 10 10

\* NA= Not applicable as per Concession Agreement \* NA= Not applicable as per Concession Agreement

\* NA= Not applicable as per Concession Agreement

\* NA= Not applicable as per Concession Agreement

Delay in obtaining EC from schedule date	L=K-D	54	54	47	-280	NA	Terminated	Terminated	NA	NA	0	0
obt: EC Sch	L				` I'	7	Tern	Tern		7		
Actual date of obtaining EC	K	11/09/2006	11/09/2006	9/09/2010	10/04/2007	NA	Terminated	Terminated	NA	NA	29/05/2008	In time
Delay in obtaining RoB approval from schedule date	J=I-D	117	NA	$^*$ NA $^*$	NA	NA	43	0	NA	117	460	882
Actual date of obtaining RoB approval	I	13/11/2006	No RoB	No RoB	No RoB	No RoB	5/10/2010	2/03/2010	No RoB	1/05/2008	13/11/2011	5/09/2012
Delay in financial close	H=G-D	145	145	171	0	174	Terminated	Terminated	98	145	76	120
Actual financial close	G	11/12/2006	11/12/2006	11/03/2011	15/01/2008	16/03/2007	Terminated	Terminated	18/10/2006	29/05/2008	15/11/2010	5/08/2010
Delay from scheduled appointed date to actual appointed date	F=E-D	0	1	-12	0	-213	Terminated	Terminated	0	0	76	<u>-</u> -
Actual appointed date	H	19/07/2006	20/07/2006	9/09/2010	15/01/2008	22/02/2006	Terminated	Terminated	24/07/2006	5/01/2008	15/11/2010	6/04/2010
Scheduled appointed date/financial close/ preconstruction activity i.e. RoB and EC.	D	19/07/2006	19/07/2006	21/09/2010	15/01/2008	23/09/2006	23/08/2010	23/08/2010	24/07/2006	5/01/2008	10/08/2010	7/04/2010
Delay in signing CA from LOA (after 45 days of	C=A-B	<i>L</i> 9	<i>L</i> 9	28	91	133	174	174	25	101	305	06
Date of signing CA	В	20/01/2006	20/01/2006	25/03/2010	19/07/2007	27/03/2006	24/02/2010	24/02/2010	25/01/2006	9/07/2007	11/02/2010	9/10/2009
Date of LOA	A	30/09/2005	30/09/2005	11/01/2010	5/03/2007	30/09/2005	20/07/2009	20/07/2009	16/11/2005	13/02/2007	26/02/2009	27/05/2009
Name of project		Salem- Kumarapalayam	Kumarapalayam- Chengapalli	Chengapalli- Kerala Border	Pondicherry- Tindivanam	Trissur- Angamalli	Kanur-Vengalam- Kuttipuram-I	Kanur-Vengalam- Kuttipuram-II	Silk Board Junction to Electronic city	Bangalore– Hoskote - Mulbagul	Kurnool – Mydakur – Kadapa	Hyderabad – Vijayawada
S. No		09	61	62	63	64	9	99	29	89	69	70

<sup>\*</sup> NA= Not applicable as per Concession Agreement

Delay in obtaining EC from schedule date	L=K-D	-145	0	-142	0	-815	307	NA	362	NA	-1776	323
	T	107	0	107	a	800	111		13			111
Actual date of obtaining EC	К	11/06/2007	In time	11/06/2007	In time	25/06/2008	14/11/2011	NA	6/09/2013	NA	16/05/2007	14/11/2011
Delay in obtaining RobB approval from schedule date	J=I-D	0	NA	NA*	NA	Not available	Not available	1946	239	293	0	521
Actual date of obtaining RoB approval	I	In time	No RoB	No RoB	No RoB	Not available	Not available	Not obtained as on 31/3/2014	6/05/2013	22/11/2011	11/06/2008	30/05/2012
Delay in financial close	H=G-D	132	159	-2	19	0	314	151	568	191	527	30
Actual financial close	G	14/03/2008	9/08/2008	29/10/2007	3/03/2011	18/09/2010	21/11/2011	1/05/2009	Not declared as on 31/3/2014	12/08/2011	4/09/2013	25/01/2011
Delay from scheduled appointed date to actual appointed date	F=E-D	-1	1-	-1	112	0	314	151	568	315	402	323
Actual appointed date	Ε	2/11/2007	2/03/2008	30/10/2007	4/06/2011	18/09/2010	21/11/2011	1/05/2009	Not declared as on 31/3/2014	14/12/2011	2/05/2013	14/11/2011
Scheduled appointed date/financial close/ preconstruction activity i.e. RoB and EC.	D	3/11/2007	3/03/2008	31/10/2007	12/02/2011	18/09/2010	11/01/2011	1/12/2008	9/09/2012	2/02/2011	26/03/2012	26/12/2010
Delay in signing CA from LOA (affer of LOA of LOA)	C=A-B	87	114	84	44	-3	12	59	59	54	ж	4
Date of signing CA	В	7/05/2007	5/09/2007	4/05/2007	16/08/2010	22/03/2010	15/07/2010	4/06/2008	13/03/2012	6/08/2010	28/09/2011	29/06/2010
Date of LOA	A	26/12/2006	30/03/2007	26/12/2006	19/05/2010	8/02/2010	19/05/2010	21/02/2008	30/11/2011	29/04/2010	11/08/2011	19/05/2010
Name of project		Maharashtra – AP Border (package 6)	Islam Nagar – Kadtal (package 7)	Kadtal – Armoor (Package 8)	Tumkur – Chitradurga six laning	Hungund – Hospet	Chilakaluripet – Nellore	Vijayawada – Chilakaluripet	Angul – Sambalpur	Bhubaneswar – chandikole	Panikoli – Rimoli	Sambalpur – Barahgarh
z z		71	72	73	74	75	92	77	78	79	80	81

<sup>\*</sup> NA= Not applicable as per Concession Agreement

No Si	Name of project	Date of LOA	Date of signing CA	Delay in signing CA from LOA (after 45 days of LOA)	Scheduled appointed date/financial close/ preconstruction activity i.e. RoB and EC.	Actual appointed date	Delay from scheduled appointed date to actual appointed date	Actual financial close	Delay in financial close	Actual date of obtaining RoB approval	Delay in obtaining RoB approval from schedule date	Actual date of obtaining EC	Delay in obtaining EC from schedule date
		A	В	C=A-B	D	ш	F=E-D	Ü	H=G-D	I	J=I-D	X	L=K-D
82	Hazipur- Muzaffarpur	18/11/2009	24/02/2010	53	23/08/2010	12/08/2010	-11	18/08/2010	<i>S</i> -	22/04/2010	0	15/05/2007	-1196
83	Chhapra-Hazipur	13/05/2010	28/07/2010	31	24/01/2011	27/01/2011	3	24/01/2011	0	2008	0	In time	0
84	Kosi Bridge work	28/04/2006	6/10/2006	116	4/04/2007	4/04/2007	0	25/07/2007	112	In time	0	In time	0
85	Patna-Bakhityarpur	30/12/2010	31/03/2011	46	27/09/2011	26/09/2011	-1	26/09/2011	-1	28/09/2010	0	19/09/2011	8-
98	Khagaria-Purnea	15/02/2011	8/04/2011	7	5/10/2011	5/10/2011	0	5/10/2011	0	No RoB	$\mathrm{NA}^*$	NA	NA
87	Barhi-Hazaribagh	19/05/2010	31/08/2010	59	27/02/2011	11/02/2012	349	21/04/2011	53	No RoB	NA	10/02/2012	348
88	Hazaribagh- Ranchi	19/08/2009	8/10/2009	5	6/04/2010	1/08/2010	117	18/08/2010	134	31/01/2012	999	19/02/2007	-1142
68	Ranchi-Rargaon- Jamshedpur	8/03/2011	20/04/2011	-2	17/10/2011	4/12/2012	414	31/01/2012	106	15/04/2011	0	10/07/2012	267
06	Aurangabad- Barwa Adda	31/03/2012	18/05/2012	3	14/11/2012	Not declared as on 31/3/2014	502	Not declared as on 31/3/2014	502	Not obtained as on 31/3/2014	502	Not obtained as on 31/3/2014	502
91	Mahulia- Kharagpur	7/12/2011	29/02/2012	39	27/08/2012	Not declared as on 31/3/2014	581	17/07/2012	-41	19/02/2013	176	10/01/2014	501
92	Raipur-Bilaspur	30/11/2011	25/01/2012	11	23/07/2012	Terminated	Terminated	Terminated	Terminated	7/12/2012	137	12/05/2012	-72
93	End of Durg Bypass	1/12/2006	23/01/2008	373	21/07/2008	22/07/2008	1	14/01/2009	177	No RoB	NA	11/06/2007	-406
94	Aurang-Saraipalli	29/08/2011	25/01/2012	104	23/07/2012	15/02/2013	207	23/07/2012	0	No RoB	NA	10/5/2012	74

\* NA= Not applicable as per Concession Agreement

### Performance Audit of Implementation of Public Private Partnership Projects in National Highways Authority of India

Annexure – 2 (Referred in Para 5.3)

## (Referred in Para 5.3) Details of delay and damages for non achieving of appointed date

S. S.	Stretch	Date Of agreement	Scheduled financial close date/	Date of achieving financial	Appointed date	Delay in days in achieving appointed date	Damages/waiving off	Reasons for delay in achieving appointed date
			achieving appointed date	6				
	2	3	4	S	9	7=6-4	∞	6
	Gorakhpur Bypass	06/10/2006	04/04/2007	20/07/2007/ 107 days	06/04/2007	2 days		Concessionaire paid penalty of Rs. 16 lakh and Rs. 26517 as interest for delay in achieving Financial Close.
I	Jammu– Udhampur	19/07/2010	15/01/2011	24/03/2011/ 68 days	17/06/2011	153 days	Penalty waived off	NHAI waived off the damages.
	Quazigund-Banihal	13/07/2010	08/01/2011	22/06/2011/ 165 days	05/06/2011	148 days.	Penalty not charged	Delay is attributable to the concessionaire as the NHAI has fulfilled all its obligations in time.
	Panipat - Jalandhar	09/05/2008	05/11/2008	09/04/2009/ 155 days	11/05/2009	187 days	Penalty waived off	Waiver of damages for delay in financial close from both sides on the ground of liquidity tightening in the financial markets. Hence, the waiver of damages of Rs.21.29 crore for delay in achieving financial close has resulted in undue benefit to concessionaire.
	Gurgaon - Kotputli - Jaipur	06/06/2008	03/12/2008	03/04/2009 121 days	03/04/2009	121 days	Penalty waived off	Waiver of damages for financial close from both sides on the ground of liquidity tightening in the financial markets. Hence, the waiver of damages of Rs.10.42 crore for delay in achieving financial close has resulted in undue benefit to concessionaire.
1	Varanasi-Aurangabad	30/07/2010	26/01/2011	20/05/2011 114 days	12/09/2011	229 days	Penalty waived off	Damages for delay in appointed date waived off.  Delay in financial close attract damages of Rs 11.04 crore as per clause 24.1.1 of CA. NHAI recommended for a notice for imposition of penalty for 114 days for delay in financial close but were waived off (20/08/2011) on the ground of land issue but as per NHAI records, as on 26/01/2011, 83.3 per cent (983.42 ha) of encumbrance free land and 3D of 88.05 ha (7 per cent) was provided. The damages can only be waived off in case of delay solely as a result of any default or delay of NHAI,

### Performance Audit of **Implementation of Public Private Partnership Projects** in National Highways Authority of India

Annexure – 3 (Referred in Para 5.3)

### Appointed date was fixed after the date of Financial Close

S.No.	Package	Actual date of appointed date	Actual financial close	Additional days from financial close date
1	Mahua-Jaipur	21/03/2006	20/03/2006	1
2	Kadtal – Armoor (Package 8)	30/10/2007	29/10/2007	1
3	Chhapra-Hazipur	27/01/2011	24/01/2011	3
4	Pimpalgaon-Nasik-Gonde	4/01/2010	30/12/2009	S
5	Madurai-Tuticorin	20/01/2007	13/01/2007	7
9	Padalur-Trichy (NH 45)	25/11/2006	18/11/2006	7
7	Baharampore- Farakka	3/02/2011	13/01/2011	21
∞	Farakka- Raiganj	3/02/2011	13/01/2011	21
6	Bharuch-Surat	3/01/2007	7/12/2006	27
10	Panipat – Jalandhar	11/05/2009	9/04/2009	32
111	Raiganj- Dalkhola	3/02/2011	22/12/2010	43
12	Jammu – Udhampur	17/06/2011	24/03/2011	85
13	Tumkur – Chitradurga six laning	4/06/2011	3/03/2011	93
14	Ahmedabad-Godhra	27/12/2010	18/09/2010	100
15	Dankuni-Kharakpur	1/04/2012	17/12/2011	106
16	Muradabad-Bareily	4/12/2010	17/08/2010	109
17	Varanasi-Aurangabad	12/09/2011	20/05/2011	115
18	Bhubaneswar – chandikole	14/12/2011	12/08/2011	124
19	MH/Guj Border-Surat/Hazira port	30/03/2010	18/11/2009	132

S.No.	Package	Actual date of appointed date	Actual financial close	Additional days from financial close date
20	Aurang-Saraipalli	15/02/2013	23/07/2012	207
21	Barasat-Krishnanagar	7/08/2012	29/12/2011	222
22	Raibarelly to Allahabad	18/07/2012	21/11/2011	240
23	Sambalpur – Barahgarh	14/11/2011	25/01/2011	293
24	Barhi-Hazaribagh	11/02/2012	21/04/2011	296
25	Agra-Aligarh	18/04/2012	18/06/2011	305
26	Ranchi-Rargaon-Jamshedpur	4/12/2012	31/01/2012	308
27	Nagpur- Betul	20/01/2012	25/02/2011	329
28	Kiratpur-NerChowk	14/11/2013	5/09/2012	435
29	Kanpur-Kabrai	23/01/2013	5/09/2011	506
30	Pune-Solapur Pkg-II	28/09/2011	25/01/2010	611
31	Mahulia-Kharagpur	not achieved as on 31/03/2014	17/07/2012	622
32	Delhi- Agra	16/10/2012	12/01/2011	643
33	Kishangarh – Ahmedabad	not achieved as on 31/03/2014	28/05/2012	672

Annexure – 4
(Referred in Para 5.4)

Details of TPC as per CA and as per Common loan agreement

1 2 Ji	Stretch	Total project cost as per CA (Rs. in crore)	Total project cost as per common loan agreement (Rs. in crore)	Difference (Rs in crore)	{(5) * 100 }/ (3)
	Gorakhpur Bypass	600.24	753	152.76	25.45
	Jammu – Udhampur	1813.76	2400	586.24	32.32
3 C	Quazigund-Banihal	1987	2414.15	427.15	21.50
4 P	Panipat - Jalandhar	2447.5	4518.17	2070.67	84.60
5 0	Gurgaon - Kotputli - Jaipur	1896.25	3009.01	1112.76	58.68
9	Varanasi-Aurangabad	2848	3379.45	531.45	18.66
7 K	MP/MH Border-Nagpur including Kamptee Kanhan and Nagpur bypass	1170.52	1971.31	800.79	68.41
8 In	Indore-Jhabua-Gujarat/MP Border	1175	1523.71	348.71	29.68
9 J	Jaipur-Tonk – Deoli	792.06	1733	940.94	118.80
10 N	Muradabad-Bareily	1267	1983.63	716.63	56.56
11 6	Ghaziabad-Aligarh	1141	2018.68	877.68	76.92
12   B	Beawar-Pali-Pindwara	2388	2472	84	3.52
13   B	Badarpur Elevated Highways	340	572	232	68.24
14 S	Sitapur Lucknow	322	450.41	128.41	39.88
15 N	Meerut Muzaffarnagar	359	Not available	Not available	Not available
16 J	Jhansi-Lalitpur	276.09	Not available	Not available	Not available
17 N	Mahua-Jaipur	483	Not available	Not available	Not available

SI.	Stretch	Total project cost as per CA (Rs. in crore)	Total project cost as per common loan agreement (Rs. in crore)	Difference (Rs in crore)	{(5) * 100 }/ (3)
18	Bara-Orai	465	584.83	119.83	25.77
19	Jalandhar-Amritsar	263	340.03	77.03	29.29
20	Zirakpur-Parwanoo	295	474.79	179.79	60.95
21	Delhi- Agra	1928.22	3071.49	1143.27	59.29
22	Kishangarh-Ahmedabad	5387.3	7710	2322.7	43.11
23	Yamunagar-Panchkula	934.94	1376.65	441.71	47.24
24	Kiratpur-Ner-Chowk	1818.47	2291	472.53	25.99
25	Nagpur Betul	2498.76	3515	1016.24	40.67
26	Agra-Aligarh	250	254.26	4.26	1.70
27	Kanpur-Kabrai	373	458.5	85.5	22.92
28	Lucknow-Raibarelly	635.9	659.5	23.6	3.71
29	Raibareli-Allahabad	291	356.29	65.29	22.44
30	Aligarh Kanpur	723.25	1084.2	360.95	49.91
31	Chenani-Nashri	2519	3720	1201	47.68
32	Pimpalgaon –Dhule	556	606.04	50.04	9.00
33	Pimpalgaon-Nasik-Gonde	940	1691	751	79.89
34	MP-MH Border Dhule	835	1420	585	70.06
35	Vadape-Gonde	579	643	64	11.05
36	Pune-satara	1724.55	1984.77	260.22	15.09
37	Pune-Solapur Pkg-I	1110	1371	261	23.51
38	Pune-Solapur Pkg-II	835	1402.78	567.78	68.00
39	Ahmadabad Vadodara	2125.24	4880	2754.76	129.62

SI.	Stretch	Total project cost as per CA (Rs. in crore)	Total project cost as per common loan agreement (Rs. in crore)	Difference (Rs in crore)	{(5) * 100 }/ (3)
40	Ahmdabad-Godhra	1008.5	1155.4	146.9	14.57
41	Kandla-Mundra	953.88	1128	174.12	18.25
42	Samakhiali-Gandhidham	805.39	1300	494.61	61.41
43	Vadodara- Bharuch- BOT-I	660	1450	790	119.70
44	Bharuch-Surat BOT-II	492	1588.91	1096.91	222.95
45	Maharashtra/Gujarat Border – Surat/Hazira Port	1509.1	2418.64	909.54	60.27
46	Dahisar-Surat	1693.75	2528.57	834.82	49.29
47	Madurai-Tuticorin	629	920	291	46.26
48	Tiruchy-Dindigul (NH 45)	576	537.32	-38.68	-6.72
49	Padalur-Trichy (NH 45)	320	411	91	28.44
50	Salem-Karur	205.6	344.77	139.17	69.79
51	Krishnagiri-Walajapet	1250	1370	120	09.6
52	Salem-Ulundurpet	941	1061.34	120.34	12.79
53	Salem-Kumarapalayam	469.8	502	32.2	6.85
54	Kumarapalayam-Chengapalli	379.8	421.55	41.75	10.99
55	Chengapalli-Kerala Border	852	1123.17	271.17	31.83
99	Pondicherry-Tindivanam	285	314.62	29.62	10.39
57	Trissur-Angamalli	312.54	437.6	125.06	40.01
28	Kanur-Vengalam-Kuttipuram-I	1366	Concession	Concession agreement was terminated	
59	Kanur-Vengalam-Kuttipuram-II	1312	Concession	Concession agreement was terminated	
09	Barasat-Krishnanagar	867	086	113	13.03
61	Krishnanagar- Baharampore	702.16	750.4	48.24	6.87

SI.	Stretch	Total project cost as per CA (Rs. in crore)	Total project cost as per common loan agreement (Rs. in crore)	Difference (Rs in crore)	{(5) * 100 }/(3)
62	Baharampore- Farakka	998.79	1169.11	170.32	17.05
63	Farakka- Raiganj	1078.84	1378.44	299.6	27.77
64	Raiganj- Dalkhola	580.43	684	103.57	17.84
65	Barwa Adda- Panagarh	1665	2434.86	769.86	46.24
99	Dankuni- Kharagpur	1396.18	2205.15	808.97	57.94
<i>L</i> 9	Silk Board Junction to Electronic city	450	775.52	325.52	72.34
89	Bangalore- Hoskote - Mulbagul	565	736.38	171.38	30.33
69	Kurnool – Mydakur – Kadapa	1585	1636	51	3.22
70	Hyderabad – Vijayawada	1740	2194	454	26.09
71	Maharashtra – AP Border (package 6)	360.42	469.4	108.98	30.24
72	Islam nagar – Kadtal (package 7)	518.46	009	81.54	15.73
73	Kadtal – Armoor (Package 8)	271.73	315	43.27	15.92
74	Tumkur – Chitradurga six laning	839	1204	365	43.50
75	Hungund – Hospet	946	1650.92	704.92	74.52
92	Chilakaluripet-Nellore	1535	2550	1015	66.12
77	Vijayawada – Chilakaluripet	675.38	804	128.62	19.04
78	Angul – Sambalpur	1220.32	1326.05	105.73	8.66
79	Bhubaneswar – chandikole	1047	1587	540	51.58
80	Panikoli – Rimoli	1410	2306.16	896.16	63.56
81	Sambalpur – Barahgarh	909	1142.18	233.18	25.65
82	Hazipur–Muzaffarpur	671.7	940.05	268.35	39.95
83	Chhapra-Hajipur	575	812.5	237.5	41.30

SI. No.	Stretch	Total project cost as per CA (Rs. in crore)	Total project cost as per common loan agreement (Rs. in crore)	Difference (Rs in crore)	{(5) * 100 }/ (3)
84	Patna – Bakhtiyarpur	574	908.02	334.02	58.19
85	4 lane bridge across river Kosi	418.04	439.61	21.57	5.16
98	Khagaria-Purnea	664	735	71	10.69
87	Barhi-Hazaribagh	398	467.6	9.69	17.49
88	Hazaribagh-Ranchi	625.07	869.18	244.11	39.05
68	Ranchi-Rargaon-Jamshedpur	1479	1655	176	11.90
06	Aurangabad-Barwa Adda	2340	2340	0	0.00
91	Mahulia-Kharagpur	940	940	0	0.00
92	Raipur-Bilaspur	1216.03	1216.03	0	0.00
93	End of Durg Bypass	464	587	123	26.51
94	Aurang-Saraipalli	1232	1236	4	0.32

Annexure – 5 (Referred in Para 5.5)

# Delay in completion of projects scheduled to be completed by 31/03/2014

SI. No.	Section	Appointed date	Scheduled date of completion	Date of issuing PCC	Delay in days from scheduled completion date to date of PCC	Remarks
1	Gorakhpur Bypass	6/04/2006	5/10/2009	25/1/13 w.e.f 31/3/12	1208	PCC issued on 25/01/2013 w.e.f 31/03/2012 by the IC. Delay in days calculated up to date of issue of PCC.
2	Sitapur-Lucknow	22/06/2006	21/06/2009	17/10/2011(Partial) complete on 02/08/2012	1138	
3	Bara-Orai	24/10/2006	24/04/2009	11/07/2011 w.e.f 30/06/2009	808	The PCC was issued by the IC on 11/7/2011 with retrospective effect from 30/6/2009. Delay in days calculated up to date of issue of PCC.
4	Meerut- Muzaffarnagar	9/03/2006	5/03/2009	18/04/2011 (Partial) complete on 21/10/2011	096	
S	Jalandhar- Amritsar	13/07/2006	30/11/2008	29/04/2010	515	
9	Zirakpur-Parwanoo	1/03/2008	28/08/2010	22/03/2012	572	
7	Gurgaon – Jaipur	3/04/2009	2/10/2011	Not completed as on 31/03/2014	911	Not completed as on 31/03/2014
∞	Panipat – Jalandhar	11/05/2009	7/11/2011	Not completed as on 31/03/2014	875	Not completed as on 31/03/2014
6	Jhansi-Lalitpur	28/03/2007	28/09/2009	31/07/2010	306	
10	Mahua-Jaipur	21/03/2006	20/03/2009	26/09/2009	190	
11	Jaipur- Deoli	23/07/2010 refixed as14/06/2010	22/12/2012	27/09/2013	279	
12	Badarpur Elevated Highway	23/12/2008	23/12/2010	30/11/2010	-23	

Remarks	Out of total length of 115 km, 78 km (including 22 existing 4-laned) has been completed. Remaining is pending for construction for want of forest clearance.	ın 31/03/2014	ın 31/03/2014	Major delays are on account of delays in respect of a. 53 days delay on account of diversion of forest land b. 286 days delay on account of land acquisition. c. 6 days delay on account of force majeure due to riot.	Reasons for delay were non-availability of land, delay in approval of utility shifting estimates. Not completed as on 31/03/2014	There was a delay of 33 days in the project.	Reasons for delay in permission by railways for ROBs and approval of GAD. Delay in handing over of additional land and delay in getting forest clearance. (780 days+209days for which damages levied.)	Reasons for delay in land acquisition and slow progress of work. Not completed as on 31/03/2014	Reason for delay was non-availability of land. Not completed as on 31/03/2014	ın 31/03/2014	ın 31/03/2014	n 31/03/2014
	Out of total lengtl completed. Remain	Not completed as on 31/03/2014	Not completed as on 31/03/2014	Major delays are o a. 53 days delay or b. 286 days delay c c. 6 days delay on	Reasons for delay shifting estimates.	There was a delay	Reasons for delay Delay in handing (780 days+209day	Reasons for delay as on 31/03/2014	Reason for delay w	Not completed as on 31/03/2014	Not completed as on 31/03/2014	Not completed as on 31/03/2014
Delay in days from scheduled completion date to date of PCC	-110	410	221	342	638	33	066	365	689	280	256	386
Date of issuing PCC	11/06/2012	Not completed as on 31/03/2014	Not completed as on 31/03/2014	3/03/2010	Not completed as on 31/03/2014	20/07/2012	27/12/2011	Not completed as on 31/03/2014	Not completed as on 31/03/2014	Not completed as on 31/03/2014	Not completed as on 31/03/2014	Not completed as on 31/03/2014
Scheduled date of completion	29/09/2012	14/02/2013	22/08/2013	26/03/2009	1/07/2012	17/06/2012	11/04/2009	31/03/2013	11/05/2012	24/06/2013	18/07/2013	10/03/2013
Appointed date	3/04/2010	20/08/2010	25/02/2011	27/03/2006	4//01/2010	21/12/2009	12/04/2006	1/10/2010	14/11/2009	27/12/2010	19/01/2011	11/09/2010
Section	MP/MH Border – Nagpur including Kamptee-Kanhan and Nagpur bypass	Indore-Jhabua- Gujrat/MP Border	Gaziabad-Aligarh	Pimpalgaon – Dhule	Pimpalgaon-Nasik- Gonde	MP-MH Border Dhule	Vadape-Gonde	Pune-satara	Pune-Solapur Pkg-I	Ahmedabad- Godhara	Kandla-Mundra	Samakhiyali- Gandhidham
SI. No.	13	4	15	16	17	18	19	20	21	22	23	24

SI.	Section	Appointed date	Scheduled date of completion	Date of issuing PCC	Delay in days from scheduled completion date to date of PCC	Remarks
51	Hazipur– Muzaffarpur	12/08/2010	8/02/2013	Not completed as on 31/03/2014	416	Not completed as on 31/03/2014
52	Chapra-Hajipur	27/01/2011	25/07/2013	Not completed as on 31/03/2014	249	Not completed as on 31/03/2014
53	4 lane bridge across river Kosi	4/04/2007	4/04/2010	8/02/2012	675	The PCC was issued on 08/02/2012; however, delay days were yet to be approved by the Authority.
54	Hazaribagh-Ranchi	1/08/2010	27/01/2013	Not completed as on 31/03/2014	428	Not completed as on 31/03/2014
55	End of Durg Bypass	22/07/2008	22/01/2011	31/12/2012	709	The PCC was issued on 04/02/2012 but work was completed by 31/12/2012.
56	Varanasi- Aurangabad	12/09/2011	9/03/2014	Not completed as on 31/03/2014	22	Not completed as on 31/03/2014
57	Pune-Solapur-II	28/09/2011	14/01/2014	Not completed as on 31/03/2014	76	Not completed as on 31/03/2014
58	Patna-Bhaktiyarpur	26/09/2011	25/03/2014	Not completed as on 31/03/2014	9	Not completed as on 31/03/2014
59	Barhi-Hazaribagh	11/02/2012	10/02/2014	Not completed as on 31/03/2014	49	Not completed as on 31/03/2014
09	Krishnagiri- Walajhapet	7/06/2011	4/12/2013	Not completed as on 31/03/2014	109	Not completed as on 31/03/2014

(Referred in Para 5.6) Annexure – 6

### Damages for delay in completion of the punch list items

Remarks			NHAI neither imposed the penalty of Rs.10 lakh (after expiry of 120 days) nor demanded cost estimate from the IC for undertaking the completion of the punch list items at the risk and cost of the concessionaire.	
Recovery	17/10/2011(for 50 Km stretch) 02/08/2012 w.e.f 10/01/2012 ( for remaining 25.070 kms)	18/04/2011 (for 57 km and 21/10/2011 ( for 20.80 Km)	31/07/10	30/03/2008 ( for 54.729 Km) 26/09/2009
Details of damages levied	Rs.28 Lakh (for 50 Km stretch) Achieved in time (for remaining stretch 25.070 kms)	Rs. 1.17 crore (Rs200000 per week from 16/08/2011 to 30/09/ 2012) Rs 1.43 crore (Rs.200000 per week from 18/02/2012 to 30/06/ 2013)	200 per cent cost of the punch list work remaining subject to minimum of Rs.10 Lakh (considered as Rs.10 lakh since the cost of remaining work is not available)	Not available
Actual date of completion of punch list items	26/05/2012 ( for 50 Km stretch) 26/09/2012 ( for remaining stretch 25.070 kms)	Completed (In fact the punch list items was shifted to Annexure A/B to be completed in O & M period) (status as on June 2013)	Yet to be completed (status as on October 2012)	Final completion certificate is yet to be issued
Schedule date of completion of punch list items	16/02/2012 ( for 50 Km stretch) 30/11/2012 (for remaining stretch 25.070 kms)	16/08/2011(for 57 Km) 18/02/2012 ( for 20.80 Km)	28/11/10	28/7/2008
Date of PCC/final completion	17/10/2011(for 50 Km stretch) 02/08/2012 w.e.f 10/01/2012 (for remaining 25.070 kms)	18/04/2011 (for 57 km and 21/10/2011 (for 20.80 Km)	31/07/10	30/03/2008 ( for 54.729 Km) 26/09/2009 ( for 54.35 Km)
Name of the stretch	Sitapur Lucknow	Muzaffarnagar	Jhansi Lalitpur	Mahua Jaipur
SI.	-	7	8	4

The PCC for non continuous 27/09/2013 and the main work was included in punch list due to land problem and default on the

27/09/2013

N.A.

Yet to be due

26/12/2013

27/09/2013

Jaipur-Tonk-Deoli

33

completion of punch list items Actual date of

completion of punch list items Schedule date of

Date of PCC/final completion

Name of the

SI. No.

stretch

Remarks

Recovery

Details of damages levied

issued

stretch was

part of the concessionaire as determined by IE. In addition to this a supplementary agreement was entered on 3 September 2013 for completing 29 kms out of the toal length of 119 kms.

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Annexure – 7
(Referred in Para 5.7)
Partial toll collection

Project	Amount in ₹ crore	Details of unwarranted toll collection
Lucknow- Sitapur	9.58	The Scheduled completion date was 21/06/2009. As per CA partial tolling can be done only if the entire project highway is completed within stipulated construction period (i.e. upto 21/06/2009). In case of Lucknow-Sitapur stretch the PCC for partially completed stretch was issued after granting two EOT's (i.e. on 17/10/2011). The PCC for the complete stretch was issued in January, 2012. As the toll on the partially completed stretch could only be started if the entire project highway is completed i.e. on 21/06/2009, allowing the concessionaire to collect toll on incomplete stretch to of ₹ 9.58 crore from October, 2011 to January, 2012 was in contravention to the CA resulting into unwarranted burden on the road user prior to completion of the project highway.
Jaipur-Mahua	8.24	The Scheduled completion date was 20/03/2009. As per CA partial tolling can be done only if the entire project highway is completed within stipulated construction period (i.e. upto20/03/2009). In case of Jaipur-Mahua stretch the PCC for partially completed stretch was issued on 30/03/2008. The PCC for the completed stretch was issued on 26/09/2009 after a delay of 189 days and the EOT was granted upto 06/05/2009. The concessionaire deposited ₹ 8.24 crore as toll collection from 07/05/2009 to 10/09/2009 as per supplementary agreement between NHAI and concessionaire in a separate A/c i.e. "Damages payment sub account".  As toll on the partially completed stretch could only be collected if the entire project highway was completed on 20/03/2009, allowing the concessionaire to collect toll from 07/05/2009 to 10/09/2009 on incomplete stretch and depositing the same into different account is in contravention to CA and resulting into unwarranted burden on the road users.
Meerut- Muzaffarnagar	27.08	The Scheduled completion date was 08/03/2009. As per CA the partial tolling can be done only if the entire project highway is completed within stipulated construction period (i.e. upto08/03/2009). In case of Meerut-Muzaffarnagar stretch the PCC for partially completed stretch was issued after granting two EOT's (i.e. on 18/04/2011). The PCC for the complete stretch was issued on 21/10/2011. As toll on the partially completed stretch could only be started if the entire project highway was completed on 08/03/2009, allowing the concessionaire to collect toll on incomplete stretch of Rs.27.08 crore from 24/04/2011 to 20/10/2011 was in contravention to the clause of CA resulting into unwarranted burden on the road user prior to completion of the project highway.

Annexure – 8 (Referred in Para 5.9) Change of scope

	Name of the stretch	Details of change	Reasons	Remarks	Status of project as on 31/03/2014
1	Badarpur – Faridabad Elevated	Construction of two additional PUPs at a tentative cost of Rs.3.54 crore (Rs.4.40 crore – Rs.0.86 crore). Any change of scope over and above Rs.85.50 lakh (0.25 per cent of TPC) was to be borne by Authority	As per site conditions	On the recommendation of the IE, competent authority approved (10/7/2012)	Six laning elevated highway was completed on 29/11/2010
7	Gorakhpur Bypass Section	As per demand of villagers nine additional underpasses were approved by the Authority as CoS at a cost of Rs.12.49 crore which was about 2.08 % of the Contract Cost.	Public demand.	No payment has been made in this regard.	The work of 4/6 laning was completed on 31 March 2012
3	Kamptee – Kanhan and Nagpur bypass	In terms of clause 16.3.2 of CA, all costs arising out of any change in scope order issued during the concession period shall be borne by the concessionaire subject to an aggregate ceiling of 0.25 per cent of the project cost which worked out to Rs. 2.93 crore. The balance expenditure due to change of scope is to be borne by the Authority.	As per site conditions  The Vidarbha Irrigation Development Corporation, Maharashtra proposed to construct of four Box culverts on NH – 7 as deposit work for which the concessionaire claimed Rs 1.23 crore. Against this claim authority disbursed Rs 96.67 lakh till 31 October 2012.	As amount of Rs. 96.67 lakh was within the aggregate celling of Rs.2.93 crore, its payment to the concessionaire was irregular	The PCC was issued on 11 June 2012 except 37.450 km of four laning in forest section.
4	Meerut – Muzaffarnag ar section	NHAI had to bear Rs 5.99 crore towards net impact of change of scope (Rs. 3.46 crore on account of negative change of scope and Rs. 9.45 crore on account of positive change of scope).	As per site requirement.	Since the work was carried out due to site conditions the CoS, no comments to offer.	Concessionaire had started the toll collection from 24/4/2012.
S	Zirakpur- Parwanoo section	The concessionaire claimed Rs. 159.53 crore on account of modified alignment considering it as change in scope although NHAI had not accepted the same till date (October 2012).	Faulty DPR	Even though the CoS was not accepted by NHAI, there are chances of the concessionaire going for legal action for claiming this amount. The fault is on the part of DPR consultant as well as NHAI who had not verified the details in the DPR.	The PCC for the project was issued on 22/03/2012

	Name of the stretch	Details of change	Reasons	Remarks	Status of project as on 31/03/2014
10	Panipat Jalandhar section	The total cost of the change in scope of work amounted to Rs. 40.52 crore. The balance expenditure due to change of scope amounting to Rs. 33.65 crore is to be borne by the Authority.	Proposed based on the recommendation of the public representatives.	The project is yet to be completed	Six lane project work in progress.
11	Indore- Gujarat/ MP Border section	The total cost of the change in scope of work amounted to Rs 10.87 crore. The balance expenditure due to change of scope amounting to Rs. 7.93 crore is to be borne by the Authority.	Change of scope due to site conditions	Since the work was carried out due to site conditions, no comments.	Project is under construction
12	Jaipur-Tonk- Deoli section	The total cost of the change in scope of work amounting to Rs.9.38 crore. The balance expenditure due to change of scope amounting to Rs.7.40 crore is to be borne by the Authority.	The structures were proposed in the DPR but were deleted from the CA by the Authority.	Change of Scope (COS) amounting to Rs.9.38 crore could have been avoided if the authority had correctly provided for the highway structure (VUP) in the CA during restructuring from six to four lane.	Construction of the project was completed on 27/09/2013.
13	Nagpur – Saoner – Betul section	The total cost of the change in scope of work amounted to Rs. 18.72 crore. The balance expenditure due to change of scope amounting to Rs. 12.47 crore is to be borne by the Authority.	Public demand	Since the work was carried out due to Public demand and VIP reference, no comments can be offered.	Four laning of this stretch is scheduled to be completed by 18/07/2015
14	Pimpalgaon- Nasik-Gonde	PUP/CUP, VUP, Service Road, Bridges, Flyovers at a cost of Rs.2.12. crore	Public Demand	Cost of the work carried out will be the additional financial burden on NHAI.	Project under construction
15	MP-MH Border Dhule	There are four COSs, i.e. PUP, Box culvert, VUP at a cost of Rs.39.88 crore	Villagers demand and irrigation purpose	Cost of the work carried out will be the additional financial burden on NHAI.	PCC issued on 20/07/2012.
16	Vadape- Gonde	Construction of PUP, VUP, subways, CUP, retaining wall, bridges, service roads etc at a cost of Rs.56.54 crore	Faulty DPR.	Cost of the work carried out will be the additional financial burden on NHAI.	PCC issued on 27/12/2011.
17	Pune Satara	Building a new 3-lane tunnel of 1000 m length	DPR but not in CA-Rs.327.33 crore		Project under work is in progress
18	Pune-Solapur Pkg-II	Extra Spans for Mohol Flyover and Sub-structure of Major Bridge	Faulty DPR-9.5 crore	Cost of the work carried out will be the additional financial burden on NHAI.	Project under O & M. COD achieved on 28/01/2013.

Annexure 9 (Referred in Para 5.10)

# Comparison of actual expenditure incurred on utility shifting w.r.t estimates as per DPR/FR consultant

S.NO	Name of projects	Expenditure estimated in DPR/FR (Rs in crore)	Actual utility shifting expenditure incurred (Rs in crore)	Expenditure upto	Per cent of DPR/FR estimate
1	Zirakpur Parwanoo	0.7	19.82	March, 2014	2831.43
2	Panipat - Jalandhar	9	145.49	March, 2014	2424.83
3	MP/MH Border-Nagpur including construction of Kamptee-Kanhan and Nagpur bypass	2.1	24.18	March, 2014	1151.43
4	Gurgaon - Kotputli - Jaipur	14.1	96.28	Feb, 2014	682.84
5	Ghaziabad-Aligarh	2.18	27.46	March, 2014	1259.63
9	Bara-Orai	0.41	8.49	March- 2014	2070.73
7	Quazigund-Banihal	1.2	0	Feb, 2014	0.00
8	Gorakhpur Bypass	2.28	0.27	March- 2014	11.84
6	Sitapur Lucknow	3.48	5.59	March, 2014	160.63
10	Nagpur- Betul	Not mentioned in DPR/FR	53.27	March, 2014	•
11	Jhansi-Lalitpur	4.74	4.67	March- 2014	98.52
12	Jammu – Udhampur	11	8.61	March, 2014	78.27
13	Muradabad-Bareily	5.95	13.96	March, 2014	234.62
14	Jaipur-Tonk – Deoli	Not mentioned in DPR/FR	29.27	Feb, 2014	-
15	Badarpur Elevated Highways	9.33	6.33	March, 2014	67.85
16	Mahua-Jaipur	18	10.5	March, 2014	58.33
17	Varanasi-Aurangabad	20.34	9.04	March, 2014	44.44
18	Indore-Jhabua-Gujrat/MP Border	Not available	26.25	Feb, 2014	ı
19	Lucknow-Raibarelly	5.38	18.61	March, 2014	345.91
20	Raibareli Allahabad	10.75	2.49	March, 2014	23.16
21	Beawar-Pali-Pindwara	12.51	71.5	March, 2014	571.54
22	Yamunagar-Panchkula	Not mentioned in DPR/FR	0.02	March, 2014	Appointed date not declared as on 31/03/2014

S.NO	Name of projects	Expenditure estimated in DPR/FR (Rs in crore)	Actual utility shifting expenditure incurred (Rs in crore)	Expenditure upto	Per cent of DPR/FR estimate
48	Tiruchy-Dindigul (NH 45)	Not mentioned in DPR/FR	14.14	March, 2014	·
49	Padalur-Trichy (NH 45)	4.06	8.05	March, 2014	198.28
50	Salem-Karur	4	2.93	March, 2014	73.25
51	Krishnagiri- Walajapet	20.94	22.52	March, 2014	107.55
52	Salem-Ulundurpet	293.31	53.16	March, 2014	18.12
53	Salem-Kumarapalayam	3.89	9.1	March, 2014	233.93
54	Kumarapalayam-Chengapalli	5.16	11.84	March, 2014	229.46
55	Chengapalli-Kerala Border	17.47	10.54	March, 2014	60.33
99	Pondicherry-Tindivanam	Not mentioned in DPR/FR	8.16	March, 2014	ı
57	Trissur-Angamalli	5.66	2.29	March, 2014	40.46
58	Kanur-Vengalam-Kuttipuram-I**	15	37.26	March, 2014	248.40(Terminated project)
65	Kanur-Vengalam-Kuttipuram-II**	10	2.26	March, 2014	22.60(Terminated project)
09	Barasat-Krishnanagar	10.53	7.98	June-2014	75.78
61	Krishnanagar- Baharampore	8.22	11.22	June-2014	136.50
62	Baharampore- Farakka	15	8.67	June-2014	57.80
63	Farakka- Raiganj	25	13.73	June-2014	54.92
64	Raiganj- Dalkhola	4.4	3.72	June-2014	84.55
65	Barwa Adda- Panagarh	150	12.78	June-2014	8.52
99	Dankuni-Kharakpur	17.84	7.99	June-2014	44.79
29	Silk Board Junction to Electronic city	Not mentioned in DPR/FR	14.8	March, 2014	-
89	Bangalore- Hoskote - Mulbagul	10	27.32	March, 2014	273.20
69	Kurnool – Mydakur – Kadapa	7.4	20.13	March, 2014	272.03
70	Hyderabad – Vijayawada	10.21	31.31	March, 2014	306.66
71	Maharashtra – AP Border (package 6)	6.94	6.04	March, 2014	87.03
72	Islam nagar – Kadtal (package 7)	3.35	4.05	March, 2014	120.90
73	Kadtal – Armoor (Package 8)	3.27	7.36	March, 2014	225.08
74	Tumkur – Chitradurga six laning	12.67	0.44	March, 2014	3.47

S.NO	Name of projects	Expenditure estimated in DPR/FR (Rs in crore)	Actual utility shifting expenditure incurred (Rs in crore)	Expenditure upto	Per cent of DPR/FR estimate
75	Hungund – Hospet	15	41.95	March, 2014	279.67
92	Chilakaluripet – Nellore	43.28	24.8	March, 2014	57.30
77	Vijayawada – Chilakaluripet	13.51	42.72	March, 2014	316.21
78	Angul – Sambalpur	Not mentioned in DPR/FR	Not mentioned	March, 2014	Appointed date not declared as on 31/03/2014
79	Bhubaneswar – chandikole	6.61	1	March, 2014	15.13
80	Panikoli – Rimoli	4.99	0.44	March, 2014	8.82
81	Sambalpur – Barahgarh	2.5	6.51	March, 2014	260.40
82	Hazipur–Muzaffarpur	9.9	5	March -14	75.76
83	Chhapra-Hajipur	11.34	1.45	March -14	12.79
84	4 lane bridge across river Kosi	0.07	0	March -14	00.00
85	Patna-Bakhtiyarpur	16.16	4.98	March -14	30.82
98	Khagaria-Purnea	17.81	15.08	March -14	84.67
87	Barhi-Hazaribagh	15	10.36	March -14	69.07
88	Hazaribagh-Ranchi	67.5	55.83	March -14	82.71
68	Ranchi-Rargaon-Jamshedpur	21.13	35.97	March -14	170.23
06	Aurangabad-Barwa Adda	51.97	0	March -14	Appointed date not declared as on 31/03/2014
91	Mahulia-kharagpur	Not mentioned in DPR/FR	0	March -14	Appointed date not declared as on 31/03/2014
92	Raipur-Bilaspur	75	6.87	March -14	9.16(Terminated project)
93	End of DurgBypass	19.7	19.11	March -14	97.01
94	Aurang-Saraipalli	65	1.52	March -14	2.34

Annexure 10 (Referred in Para 7.4.1 and 7.5.1)

# Scheduled & actual date in appointment of Independent Consultant/Engineer and Safety Consultant

Delay in days	105	1408	1166	1026	1049		1078	1361	998	902	236	1282	875	924	317
Actual date of appointment of safety consultant (DD:MM:YYYY)	27/01/2011	Not appointed as on 31/03/2014	6/01/2014	Not appointed as on 31/03/2014	23/04/2014	NA	4/03/2014	9/07/2014	18/05/2012	Not appointed as on 31/03/2014	11/01/2011	Not appointed as on 31/03/2014	27/01/2011	8/01/2014	27/01/2011
Schedule date of appointment of safety consultant (DD:MM:YYYYY)	14/10/2010	23/05/2010	28/10/2010	9/06/2011	9/06/2011	$\mathrm{NA}^*$	22/03/2011	17/10/2010	3/01/2010	11/10/2011	20/05/2010	26/09/2010	4/09/2008	29/06/2011	16/03/2010
Delays in days	725	425	407	272	347	389	296	268	282	250	243	214	211	232	174
Actual date of appointment of IC/IE (DD:MM:YYYY)	8/10/2012	22/07/2011	9/12/2011	7/03/2012	21/05/2012	27/02/2008	12/01/2012	12/07/2011	12/10/2010	17/06/2012	18/01/2011	29/04/2011	6/03/2009	16/02/2012	6/09/2010
Scheduled date of appointment of IC/IE (DD:MM:YYYYY)	14/10/2010	23/05/2010	28/10/2010	9/06/2011	9/06/2011	3/02/2007	22/03/2011	17/10/2010	3/01/2010	11/10/2011	20/05/2010	27/09/2010	7/08/2008	29/06/2011	16/03/2010
Date of concession agreement (DD:MM:YYYY)	16/07/2010	22/02/2010	30/08/2010	11/03/2011	11/03/2011	6/10/2006	23/12/2010	19/07/2010	5/10/2009	13/07/2010	19/02/2010	28/06/2010	9/05/2008	31/03/2011	16/12/2009
Project Name	Delhi-Agra	Indore-Jhabua	Nagpur Betul	Aligarh Kanpur	Kanpur-Kabrai	Gorakhpur Bypass	Agra-Aligarh	Jammu –Udhampur	MP/MH Border- Nagpur including Kamptee-Kanhan and Nagpur bypass	Quazigund-Banihal	Muradabad-Bareily	ChenaniNashri	Panipat - Jalandhar	Raibareli to Allahabad	Jaipur-Tonk-Deoli
SI.No	1	7	3	4	5	9	7	8	6	10	11	12	13	14	15

\* NA= Not applicable as per Concession Agreement

Performance Audit of **Implementation of Public Private Partnership Projects** in National Highways Authority of India

Performance Audit of Implementation of Public Private Partnership Projects in National Highways Authority of India

Delay in days	146	1	91	687	0.29	441	922	ı		762		-	ı	1	-243	999	ı	1012
Actual date of appointment of safety consultant (DD:MM:YYYY)	11/01/2011	NA	27/01/2011	23/07/2010	4/10/2010	29/08/2013	Not appointed as on 31/03/2014	NA	NA	Not appointed as on 31/03/2014	NA	NA	NA	NA	28/02/2012	28/02/2014	NA	13/07/2012
Schedule date of appointment of safety consultant (DD:MM:YYYY)	18/08/2010	NA*	28/10/2010	4/09/2008	3/12/2008	14/06/2012	21/09/2011	NA	NA	28/02/2012	NA	NA	$^{*}\mathrm{NA}^{*}$	NA	28/10/2012	3/05/2012	NA	5/10/2009
Delays in days	176	174	172	142	133	117	110	87	79	99	40	-22	14	169	519	228	124	168
Actual date of appointment of IC/IE (DD:MM:YYYY)	10/02/2011	20/07/2007	18/04/2011	24/01/2009	15/04/2009	9/10/2012	9/01/2012	25/03/2008	10/04/2006	4/05/2012	2/06/2006	3/08/2006	13/04/2006	19/06/2006	Not appointed as on 31/03/2014	17/12/2012	30/05/2006	22/03/2010
Scheduled date of appointment of IC/IE (DD:MM:YYYY)	18/08/2010	27/01/2007	28/10/2010	4/09/2008	3/12/2008	14/06/2012	21/09/2011	29/12/2007	21/01/2006	28/02/2012	23/04/2006	25/08/2006	30/03/2006	1/01/2006	28/10/2012	3/05/2012	26/01/2006	5/10/2009
Date of concession agreement (DD:MM:YYYY)	20/05/2010	29/09/2006	30/07/2010	6/06/2008	4/09/2008	16/03/2012	22/06/2011	31/08/2007	23/09/2005	30/11/2011	23/12/2005	27/04/2006	30/11/2005	9/09/2005	30/07/2012	3/02/2012	28/09/2005	8/07/2009
Project Name	Ghaziabad-Aligarh	Jhansi-Lalitpur	Varanasi- Aurangabad	Gurgaon - Kotputli - Jaipur	Badarpur Elevated Highways	Kiratpur-Ner- Chowk section	Beawar-Pali- Pindwara	Zirakpur-Parwanoo	Mahua-Jaipur	Kishangarh- Ahmedabad	Sitapur Lucknow	Bara-Orai	Jalandhar Amritsar	Meerut Muzaffarnagar	Yamunagar- Panchkula	Lucknow-Raibarelly	Pimpalgaon –Dhule	Pimpalgaon-Nasik- Gonde
SI.No	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33

\* NA= Not applicable as per Concession Agreement \* NA= Not applicable as per Concession Agreement

Delay in days	492	1	490	1137	1174	890	44	244	237	-	,	540	723	•	-	-	
Actual date of appointment of safety consultant (DD:MM:YYYY)	27/01/2011	NA	11/10/2011	28/09/2012	19/03/2013	Not appointed as on 31/03/2014	9/02/2011	8/02/2011	8/02/2011	NA	NA	8/02/2011	23/07/2010	NA	NA	NA	NA
Schedule date of appointment of safety consultant (DD:MM:YYYYY)	22/09/2009	NA	8/06/2010	18/08/2009	31/12/2009	23/10/2011	27/12/2010	9/06/2010	16/06/2010	NA	NA*	17/08/2009	30/07/2008	NA	NA	NA	NA
Delays in days	174	62	514	210	296	149	Not available	170	191	65	147	177	196	30	155	19	0
Actual date of appointment of IC/IE (DD:MM:YYYY)	15/03/2010	13/04/2006	4/11/2011	16/03/2010	20/10/2010	19/04/2012	Not available	24/11/2010	22/12/2010	13/12/2006	28/02/2007	8/02/2010	10/02/2009	20/12/2006	18/04/2008	23/10/2006	10/04/2006
Scheduled date of appointment of IC/IE (DD:MM:YYYY)	22/09/2009	10/02/2006	8/06/2010	18/08/2009	28/12/2009	22/11/2011	Not available	7/06/2010	14/06/2010	9/10/2006	4/10/2006	15/08/2009	29/07/2008	20/11/2006	15/11/2007	4/10/2006	10/04/2006
Date of concession agreement (DD:MM:YYYYY)	24/06/2009	14/10/2005	10/03/2010	19/05/2009	30/09/2009	25/07/2011	25/03/2010	10/03/2010	17/03/2010	12/07/2006	7/07/2006	18/05/2009	30/04/2008	24/07/2006	19/07/2007	30/05/2006	30/01/2006
Project Name	MP-MH Border Dhule	Vadape-Gonde	Pune-satara	Pune-Solapur Pkg-I	Pune-Solapur Pkg-II	Ahmedabad- Vadodara	Ahmedabad- Godhara	Kandla-Mundra	Samakhiyali- Gandhidham	Vadodara-Bharuch (BOT-I)	Bharuch-Surat (BOT-II)	Maharashtra/Gujarat Border – Surat/Hazira Port	Dahisar-Surat	Madurai-Tuticorin	Tiruchy-Dindigul (NH 45)	Padalur-Trichy (NH 45)	Salem-Karur
Sl.No	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

\* NA= Not applicable as per Concession Agreement

### Performance Audit of **Implementation of Public Private Partnership Projects in National Highways Authority of India**

SI.No	Project Name	Date of concession agreement (DD:MM:YYYY)	Scheduled date of appointment of IC/IE (DD:MM:YYYY)	Actual date of appointment of IC/IE (DD:MM:YYYY)	Delays in days	Schedule date of appointment of safety consultant (DD:MM:YYYYY)	Actual date of appointment of safety consultant (DD:MM:YYYYY)	Delay in days
51	Krishnagiri- Walajapet	13/05/2010	12/08/2010	8/04/2011	239	12/08/2010	19/01/2011	160
52	Salem-Ulundurpet	15/01/2008	15/11/2007	28/02/2008	105	NA	NA	
53	Salem- Kumarapalayam	20/01/2006	20/05/2006	8/06/2006	19	NA	NA	-
54	Kumarapalayam- Chengapalli	20-1-2006/	20/05/2006	17/03/2006	-64	NA	NA	
55	Chengapalli-Kerala Border	25/03/2010	23/06/2010	15/03/2011	265	23/06/2010	19/11/2010	149
99	Pondicherry- Tindivanam	1/04/2008	16/11/2007	1/04/2008	137	NA	NA	
57	Trissur-Angamalli	3/05/2006	27/03/2006	19/05/2006	53	NA	NA	ı
58	Kanur-Vengalam- Kuttipuram-I	24/02/2010	24/05/2010	Concession agreement terminated	NA	Concession agreement terminated	NA	
59	Kanur-Vengalam- Kuttipuram-II	24/02/2010	24/05/2010	Concession agreement terminated	NA	Concession agreement terminated	NA*	
09	Barasat- Krishnanagar	20/06/2011	18/09/2011	27/07/2012	313	18/09/2011	14/07/2014	1030
61	Krishnanagar- Baharampore	16/06/2011	14/09/2011	8/11/2012	421	14/09/2011	14/07/2014	1034
62	Baharampore- Farakka	28/06/2010	25/09/2010	27/03/2012	549	25/09/2010	23/11/2010	59
63	Farakka- Raiganj	19/07/2010	16/10/2010	26/12/2011	436	16/10/2010	19/11/2010	34
64	Raiganj- Dalkhola	28/06/2010	25/09/2010	26/12/2011	457	25/09/2010	19/11/2010	55
65	Barwa Adda- Panagarh	5/08/2011	Not Applicable	Not Applicable	NA	NA	NA	1

\* NA= Not applicable as per Concession Agreement

Delay in days	771	-	ı	222	377	ı	ı	ı	178	213	267	623	659	406	825
Actual date of appointment of safety consultant (DD:MM:YYYYY)	28/10/2013	NA	NA	19/01/2011	19/01/2011	NA	NA	NA	11/05/2011	19/01/2011	1/05/2012	17/05/2010	Not appointed as on 31/03/2014	15/12/2011	Not appointed as on 31/03/2014
Schedule date of appointment of safety consultant (DD:MM:YYYY)	18/09/2011	NA	NA	11/06/2010	7/01/2010	NA	NA	$NA^*$	14/11/2010	20/06/2010	12/10/2010	1/09/2008	10/06/2012	4/11/2010	27/12/2011
Delays in days	36	104	577	48	66	58	-62	0	194	187	321	277	102	434	546
Actual date of appointment of IC/IE (DD:MM:YYYY)	24/10/2011	16/10/2006	4/06/2008	29/07/2010	16/04/2010	1/11/2007	2/11/2007	2/11/2007	27/05/2011	24/12/2010	29/08/2011	5/06/2009	20/09/2012	12/01/2012	25/06/2013
of (DI	18/09/2011	4/07/2006	5/11/2006	11/06/2010	7/01/2010	4/09/2007	3/01/2008	2/11/2007	14/11/2010	20/06/2010	12/10/2010	1/09/2008	10/06/2012	4/11/2010	27/12/2011
Date of concession agreement (DD:MM:YYYY)	20/06/2011	25/01/2006	9/07/2007	10/02/2010	9/10/2009	7/05/2007	5/09/2007	4/05/2007	16/08/2010	22/03/2010	15/07/2010	4/06/2008	13/03/2012	6/08/2010	28/09/2011
Project Name	Dankuni- Kharagpur	Silk Board Junction to Electronic city	Bangalore– Hoskote – Mulbagul	Kurnool – Mydakur – Kadapa	Hyderabad – Vijayawada	Maharashtra – AP Border (package 6)	Islam nagar – Kadtal (package 7)	Kadtal – Armoor (Package 8)	Tumkur – Chitradurga six laning	Hungund – Hospet	Chilakaluripet – Nellore	Vijayawada – Chilakaluripet	Angul – Sambalpur	Bhubaneswar – chandikole	Panikoli – Rimoli
Sl.No	99	29	89	69	70	71	72	73	74	75	92	77	78	62	80

\* NA= Not applicable as per Concession Agreement

### Performance Audit of Implementation of Public Private Partnership Projects in National Highways Authority of India

Sl.No	Project Name	Date of concession agreement (DD:MM:YYYY)	Scheduled date of appointment of IC/IE (DD:MM:YYYY)	Actual date of appointment of IC/IE (DD:MM:YYYY)	Delays in days	Schedule date of appointment of safety consultant (DD:MM:YYYY)	Actual date of appointment of safety consultant (DD:MM:YYYYY)	Delay in days
81	Sambalpur – Barahgarh	29/06/2010	27/10/2010	8/12/2011	407	27/10/2010	27/01/2011	92
82	Hazipur – Muzaffarpur	24/02/2010	25/05/2010	19/11/2010	178	25/05/2010	8/02/2011	259
83	Chhapra-Hajipur	28/07/2010	26/10/2010	14/09/2011	323	26/10/2010	8/02/2011	105
84	4 lane bridge across river Kosi	6/10/2006	3/02/2007	1/05/2007	87	NA	NA	
85	Patna-Bakhtiyarpur	31/03/2011	29/06/2011	1/03/2012	246	29/06/2011	7/04/2014	1013
98	Khagaria-Purnea	8/04/2011	7/07/2011	7/03/2012	244	7/07/2011	7/04/2014	1005
87	Barhi-Hazaribagh	31/08/2010	29/11/2010	1/08/2011	245	29/11/2010	19/01/2011	51
88	Hazaribagh-Ranchi	8/10/2009	6/01/2010	5/08/2010	211	6/01/2010	8/02/2011	398
68	Ranchi-Rargaon- Jamshedpur	20/04/2011	19/07/2011	30/01/2012	195	19/07/2011	17/12/2013	882
06	Aurangabad-Barwa Adda	18/05/2012	16/08/2012	Not appointed as on 31/03/2014	592	16/08/2012	Not appointed as on 31/03/2014	592
91.	Mahulia-Kharagpur	29/02/2012	29/05/2012	Not appointed as on 31/03/2014	671	29/05/2012	Not appointed as on 31/03/2014	671
92.	Raipur-Bilaspur	25/01/2012	24/04/2012	Not appointed as on 31/03/2014	706	24/04/2012	Not appointed as on 31/03/2014	706
93.	End of DurgBypass	23/01/2008	22/05/2008	28/05/2008	9	$\mathrm{NA}^*$	NA	-
94.	Aurang-Saraipalli	25/01/2012	24/04/2012	Not available	Not available	24/04/2012	Not available	Not Available

\* NA= Not applicable as per Concession Agreement

#### **Glossary of Abbreviations**

S. No	Abbreviation	Full Form	Para No.
1	ВОТ	Build, Operate and Transfer	1.5
2	CCI	Cabinet Committee on Infrastructure	1.10
3	CA	Concession Agreement	1.9
4	CCEA	Cabinet Committee of Economic Affairs	1.6
5	COD	Commercial Operation Date	5.6
6	CoI	Committee on Infrastructure	1.1
7	COS	Change of Scope	5.9
8	DCA	Draft Concession Agreement	4.1.1
9	DoPT	Department of Personnel & Training	7.2
10	DPR	Detailed Project Report	1.9
11	EGoM	Empowered Group of Ministers	1.10
12	EoI	Expression of Interest	4.1.1
13	EOT	Extension of Time	5.3
14	EPC	Engineering, Procurement and Construction	1.4
15	FP	Financing Plan	3.2
16	FR	Feasibility Report	5.10
17	GAD	General Arrangement Drawing	5.2.3
18	GoI	Government of India	1.1
19	GoM	Group of Ministers	1.10
20	GQ	Golden Quadrilateral	1.1
21	IMG	Inter Ministerial Group	1.6
22	IC	Independent Consultant	1.10
23	IT Act	Income Tax Act	3.2
24	IE	Independent Engineer	4.1.2
25	IRC	Indian Road Congress	4.2
26	IRR	Internal Rate of Return	4.1.2.8
27	L-1	Lowest Bidder	4.1.2.7
28	LOA	Letter of Award	5.1
29	MCA	Model Concession Agreement	1.9
30	MoRTH	Ministry of Road Transport and Highways	1.1

S. No	Abbreviation	Full Form	Para No.
31	MPRs	Monthly Progress Reports	7.1
32	NH	National Highway	2.3
33	NHAI	National Highway Authority of India	1.1
34	NHDP	National Highway Development programme	1.1
35	NOC	No Objection Certificate	6.3.1
36	NPV	Net Present Value	4.3.1
37	NS-EW	North South and East West Corridor	1.1
38	O&M	Operation and Maintenance	1.9
39	PWD	Public and Works Department	7.2
40	PCC	Provisional Completion Certificate	5.6
41	PCU	Passenger Car Unit	4.2
42	PD	Project Director	7.4.3
43	PIU	Project Implementation Unit	1.10
44	PPP	Public Private Partnership	1.5
45	PPPAC	Public Private Partnership Appraisal Committee	1.6
46	PPP-PMU	PPP Projects Monitoring Unit	7.8
47	PPP-PRU	PPP Performance Review Unit	7.8
48	RFP	Request for Proposal	4.1.1
49	RFQ	Request for Qualification	4.1.1
50	ROB/RUB	Railway Over Bridge/Railway Under Bridge	2.3
51	ROW	Right of Way	5.2
52	SC	Safety Consultant	4.1.2
53	SFC	Standing Finance Committee	1.6
54	SoR	Schedule of Rate	5.4
55	SPV	Special Purpose Vehicle	5.1
56	TPC	Total Project Cost	1.8
57	VGF	Viability Gap Funding	1.11
58	e-PFMS	Project Financial Management System	7.3