सत्यमेव जयते

Report of the
Comptroller and Auditor General of India
on
Public Sector Undertakings
for the year ended 31 March 2014

Government of Maharashtra

Report No. 2 of the year 2015

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Preface

This Report deals with the results of audit of 83 Government companies and four Statutory corporations for the year ended 31 March 2014.

The accounts of Government companies (including companies deemed to be Government companies as per the provisions of the Companies Act) are audited by the Comptroller and Auditor General of India (CAG) under the provisions of Section 619 of the Companies Act, 1956. The accounts certified by the Statutory Auditors (Chartered Accountants) appointed by the Comptroller and Auditor General under the Companies Act are subject to supplementary audit by officers of the CAG and the CAG gives his comments or supplements the reports of the Statutory auditors. In addition, these companies are also subject to test audit by the CAG.

Reports in relation to the accounts of a Government Company or Corporation are submitted to the Government by CAG for laying before State Legislature of Maharashtra under the provisions of Section 19-A of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971.

CAG is the sole Auditor for Maharashtra State Road Transport Corporation, a Statutory corporation, and Maharashtra Electricity Regulatory Commission, a regulatory body. As per the State Financial Corporations (Amendment) Act, 2000, the CAG has the right to conduct the audit of accounts of Maharashtra State Financial Corporation in addition to the audit conducted by the Chartered Accountants, appointed by the Corporation from the panel of auditors approved by the Reserve Bank of India. In respect of Maharashtra State Warehousing Corporation, the CAG has the right to conduct the audit of their accounts in addition to the audit conducted by the Chartered Accountants, appointed by the State Government in consultation with the CAG. Audit of Maharashtra Industrial Development Corporation is entrusted to the CAG under Section 19(3) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971 and CAG is the sole Auditor.

The instances mentioned in this Report are those, which came to notice in the course of test audit for the period 2013-14 as well as those which came to notice in earlier years, but could not be reported in the previous Audit Reports; matters relating to the period subsequent to 31 March 2014 have also been included, wherever necessary.

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Overview

1. Overview of Government companies and Statutory corporations

Audit of Government companies is governed by Section 619 of the Companies Act, 1956. The accounts of Government companies are audited by Statutory Auditors appointed by Comptroller and Auditor General of India (CAG). These accounts are also subject to supplementary audit conducted by CAG. Audit of Statutory corporations is governed by their respective Legislations. The working results of 87 State PSUs comprising of 83 State Government companies and four Statutory corporations are discussed in this report. The turnover of 65 working PSUs was ₹ 77,462.56 crore in 2013-14 as per their latest finalised accounts. This turnover was equal to 5.25 per cent of the State Gross Domestic Product indicating the important role played by the State PSUs in the economy. Though, the working PSUs earned an overall profit of ₹ 1,973.15 crore in 2013-14 they had accumulated losses of ₹ 8,665.45 crore as on 31 March 2014.

(Paragraphs 1.1, 1.4 and 1.5)

As on 31 March 2014, the investment (Capital and long term loans) in 87 PSUs was ₹ 97,137.39 crore. It grew by 105.50 per cent from ₹ 47,268.03 crore in 2008-09 mainly because of increase in investment in power sector. The Government contributed ₹ 8,026.11 crore towards equity, loans and grants/subsidies during 2013-14.

(Paragraphs 1.3, 1.8 and 1.9)

Fifty one working PSUs had arrears of 116 accounts as of September 2014. The extent of arrears was one to eight years. There are 22 non-working companies of which two are under liquidation.

(Paragraphs 1.12 and 1.13)

During the year 2013-14, out of 65 working PSUs, 40 PSUs earned profit of ₹ 3,335.98 crore and 18 PSUs incurred loss of ₹ 1,362.83 crore. Four PSUs prepared their accounts on no profit no loss basis and three PSUs were under construction and had not prepared profit and loss account. The major contributors to profit were Maharashtra State Electricity Transmission Company Limited (₹ 2,521.89 crore) and Maharashtra State Power Generation Company Limited (₹ 319.97 crore). Heavy losses were incurred by Maharashtra State Electricity Distribution Company Limited (₹ 576.10 crore), Maharashtra State Road Development Corporation Limited (₹ 173.16 crore) and MSEB Holding Company Limited (₹ 142.56 crore).

(Paragraph 1.17)

During the year, the Statutory auditors had given unqualified certificates for 28 accounts, qualified certificates for 40 accounts and adverse certificates (which means that accounts do not reflect a true and fair view) for six accounts. Of the four accounts forwarded by the Statutory corporations during October 2013 to September 2014, two accounts received qualified certificates, one got unqualified certificate and one is under process.

(Paragraphs 1.22 and 1.23)

2. Performance Audit of Government company

Performance Audit of Maharashtra State Road Development Corporation Limited was conducted. Highlights of the Audit findings are given below:

Maharashtra State Road Development Corporation Limited (Company) was incorporated in August 1996 under the Companies Act, 1956. The main objective of Government of Maharashtra (GoM) to form the Company was to implement road infrastructure projects through Public Private Participation (PPP) and arrange funds for the projects. The GoM assigned total 26 projects to the Company upto 2005-06 and no projects were assigned thereafter. The Company had taken up 18 projects funded through borrowings and grants and remaining eight projects were awarded on Build, Operate and Transfer (BOT) basis. The project cost was to be recovered through toll collection. Performance Audit covered the working of the Company for five years from 2009-10 to 2013-14.

(Paragraph 2.1)

The Company incurred losses during the period of five years under review mainly due to non commencement of toll collections, collection of toll below the estimated revenue and closure of few toll stations before recovery of entire project cost. However, losses of ₹ 148.06 crore incurred during 2009-10 decreased to ₹ 8.86 crore during 2013-14 (as per provisional accounts). The long term borrowings also reduced from ₹ 3,063.53 crore in 2010-11 to ₹ 1,627.36 crore in 2013-14. The net worth of the Company remained negative throughout the four years.

(Paragraphs 2.8.1 and 2.8.2)

The Company completed the Nagpur-Aurangabad-Sinnar-Ghoti-Mumbai Road improvement project (NASGM) at a cost of ₹ 765.94 crore. The actual toll recovery for NASGM was far less than estimated toll collection of ₹ 193 crore per annum. The GoM decided (June 2014) to close all eight toll stations across NASGM road and proposal for reimbursement of ₹ 1,795 crore (including interest and other cost) submitted by the Company was pending with GoM.

The Company also executed eight Integrated Road Development Programme (IRDP) projects at a total cost of ₹ 1,272.46 crore which was met through borrowings and Capital Contributions from GoM and Local Bodies. The collection of toll for IRDP projects at Amravati, Pune and

Nanded completed during 2010-13 was not started due to non-issue of no objection certificate by the Pune Municipal Corporation and public demand not to levy toll.

(Paragraphs 2.10.2, 2.10.4 and 2.12.6)

The Company had no mechanism in place for periodical inspection of road conditions for preparation of annual plan and plan for special repairs. The Company had to close four toll stations on NASGM and IRDP, Aurangabad for one to 563 days during 2010-11 to 2013-14 due to public agitation against bad roads.

(Paragraphs 2.11.1)

The Company introduced Revenue Sharing Clause (RSC) in short term toll collection contracts awarded from September 2011. The RSC provided that after the contractor collects the amount offered under the contract, any excess revenue shall be remitted to the Company after deducting five *per cent* towards profit and five *per cent* towards administrative charges. However, the Company did not include any mechanism in the agreements for assessment of such excess revenue.

(Paragraph 2.12.2)

There were delays in awarding 12 toll contracts which ranged from one to 20 months and the loss of revenue worked out to ₹ 13.24 crore considering the rates received against subsequent tenders.

(Paragraphs 2.12.4)

Contractors were to pay weekly/monthly/ yearly or whole upfront payment of toll to the Company. However, there was no monitoring system in place to check the arrears and an amount of ₹ 15.10 crore was recoverable from 27 contractors even after adjusting security deposits.

(Paragraph 2.12.7)

3. Information Technology Audit of Statutory Corporation

Highlights of Information Technology Audit of computerisation of e-ticketing system in Maharashtra State Road Transport Corporation are given below:

Maharashtra State Road Transport Corporation (Corporation) incorporated in July 1961 under Section 3 of the State Road Transport Corporations Act, 1950, is mandated to provide an efficient, adequate, economical and properly coordinated road transport system within the State of Maharashtra.

(Paragraphs 3.1)

There was deficient systems design resulting in non-capturing of data for grant of concessions. The deficient input control and validation checks resulted in low assurance regarding completeness and reliability of data as observed from the tables containing details of freedom fighters, Arjuna awardees etc.

(Paragraphs 3.9.1, 3.9.2, 3.10.4 and 3.10.5)

The system could not be used for an effective Management Information System, data integration and data mining as envisaged in the scope of the contract due to non-capturing of details of buses available with depots, manual pass collection data, digitised routes and bus stops, digitisation of data of pass holders *etc.*

(Paragraphs 3.8.8 and 3.11)

Inadequate accounting arrangements and control mechanism for monetary transactions resulted in retention of amount by Authorised Booking Agents in excess of permissible limits.

(Paragraphs 3.8.7)

4. Compliance Audit Paragraphs

Compliance Audit Paragraphs included in this Report highlight irregularities involving significant financial implications of the following nature:

Loss of ₹ 5.10 crore in three cases due to non-safeguarding of financial interests of the organisations.

(Paragraphs 4.1, 4.4 and 4.5)

Loss of ₹ 3.15 crore in two cases due to non-compliance with rules, directives, procedures, terms and conditions of contract.

(Paragraphs 4.2 and 4.6)

Loss of ₹ 19.39 crore in one case due to defective/deficient planning.

(Paragraph 4.3)

Gist of some of the important audit observations is given below:

Maharashtra Small Scale Industries Development Corporation Limited could not recover license fee of ₹ 64.80 lakh for its godowns leased to two parties due to failure in taking possession of godowns immediately after arrears of license fee exceeded the amount of Security Deposit.

(Paragraph 4.1)

Maharashtra State Power Generation Company Limited had seven coal based Thermal Power Stations (TPS) with a total generation capacity of 7,980 Mega Watt (MW) of 29 units as of 31 March 2014. The capital overhaul of a generating unit is taken up once in five years while annual overhaul is to be carried out annually. Audit covered scrutiny of repair and maintenance activities at five TPS (23 units with installed capacity of 6,730 MW) during 2010-11 to 2013-14. It was observed that there was significant shortfall of 39 units in taking up annual/capital overhauls as compared to 75 units planned by the Company. Further, there was avoidable delay of 139 days in completion of overhauls during January 2011 to September 2014 leading to loss of generation of 513.11 Million Units (MUs). The preventive maintenance was not as per original equipment manufacturer manual resulting in loss of generation of 1,177.29 MUs while delay in replacement/repair of equipments led to loss of generation of 1,722.27 MUs.

(Paragraph 4.3)

Maharashtra State Electricity Distribution Company Limited incurred extra expenditure of ₹ 3.94 crore on procurement of meters due to lack of condition in tender for enforcing the suppliers to supply meters at lower rate quoted by them against subsequent tender. In another case, the Company in violation of tender condition paid price variation of ₹ 2.77 crore for belated supply of distribution transformers and granted undue favour to supplier.

(Paragraphs 4.4 and 4.6)

Chapter I

Overview of State Public Sector Undertakings

Chapter I

Overview of State Public Sector Undertakings

Introduction

1.1 The State Public Sector Undertakings (PSUs) consist of Government of Maharashtra (GoM) companies and Statutory corporations. The PSUs are established to carry out activities of commercial nature keeping in view the welfare of people and occupy an important place in the State economy. The working results of 87 State PSUs comprising of 83 State Government companies (including 22 Non-working companies) and four Statutory corporations are discussed here. The turnover of 65 working PSUs was ₹ 77,462.56 crore in 2013-14 as per their latest finalised accounts. This turnover was equal to 5.25 *per cent* of the State Gross Domestic Product (GDP) of ₹ 14,76,233 crore for 2013-14. Major activities of PSUs are concentrated in power and infrastructure sectors. The working PSUs earned an overall aggregate profit of ₹ 1,973.15 crore for 2013-14 as per their latest finalised accounts as of September 2014. They had employed 2.05 lakh employees as of 31 March 2014. Maharashtra State Financial Corporation, a Statutory corporation, stopped its financing activities and concentrated on recovery of outstanding dues, for which time extension was granted by GoM upto March 2014.

1.2 Sector-wise summary of PSUs is given below:

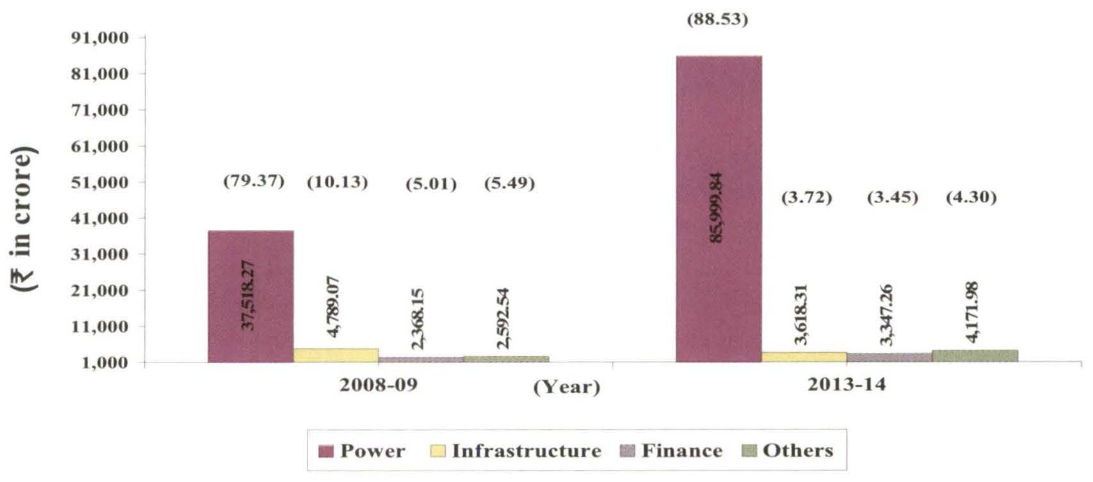
Name of Sector	No. of Government companies[1]		No. of Statutory corporations		Total	Investment[2] (₹ in crore)
	Working	Non-working[3]	Working	Non-working		
Power	10	0	0	-	10	85,999.84
Finance	16	1	1	-	18	3,347.26
Manufacturing	9	8	0	-	17	675.92
Infrastructure	11	5	1	-	17	3,618.31
Agriculture & Allied	7	6	1	-	14	689.26
Services	4	0	1	-	5	2,780.90
Miscellaneous	4	2	0	-	6	25.90
Total	**61**	**22**	**4**	**-**	**87**	**97,137.39**

1.3 The investment in various important sectors and percentage thereof at the end of 31 March 2009 and 31 March 2014 are indicated below in the bar chart. The thrust of PSU investment was mainly in the Power sector and increased from 79.37 to 88.53 *per cent* during 2008-09 to 2013-14.

[1] Includes nine 619-B Companies

[2] This includes paid up capital and loans availed from Government and financial institutions

[3] Non-working PSUs are those which have ceased to carry on their operations



(Figures in brackets show the percentage of total investment)

Accountability framework

1.4 The accounts of Government companies/Statutory corporations for every financial year are required to be finalised within six months from the end of the relevant financial year *i.e.* by 30 September.

Audit of Government companies is governed by Section 619 of the Companies Act, 1956. According to Section 617, a Government company is one in which not less than 51 *per cent* of the paid up capital is held by Government(s). A Government company includes a subsidiary of a Government company. Further, a company in which 51 *per cent* or more of the paid up capital is held in any combination by Government(s), Government companies or corporations controlled by Government(s) is treated as if it is a Government company (deemed Government company) as per Section 619-B of the Companies Act, 1956.

Statutory Audit

1.5 The accounts of the State Government companies (as defined in Section 617 of the Companies Act, 1956) are audited by Statutory Auditors, who are appointed by the Comptroller and Auditor General of India (CAG) as per the provisions of Section 619(2) of the Companies Act, 1956. These accounts are also subject to supplementary audit conducted by CAG as per the provisions of Section 619 of the Companies Act, 1956.

Audit of Statutory corporations is governed by their respective legislations:

- Out of four Statutory corporations, CAG is the sole auditor for Maharashtra State Road Transport Corporation and Maharashtra Industrial Development Corporation.

- In respect of Maharashtra State Warehousing Corporation and Maharashtra State Financial Corporation, the audit is conducted by Chartered Accountants and supplementary audit by CAG.

Role of Legislature and Government

1.6 The State Government exercises control over the affairs of these PSUs as an owner through its administrative departments. The Chief Executive and Directors on the Board of PSUs are appointed by the Government.

The State Legislature also monitors the accounting and utilisation of Government investment in the PSUs. For this, the Annual Report together with the Statutory Auditors' Report and Comments of CAG, in respect of State Government companies and Separate Audit Report in case of Statutory corporations are to be placed before the Legislature within three months of it's finalisation/as stipulated in the respective Acts. The Audit Reports of the CAG are submitted to the Government under Section 19A of the CAG's (Duties, Powers and Conditions of Service) Act, 1971.

Stake of Government of Maharashtra

1.7 As an owner, GoM has huge financial stake in these PSUs. This stake is of mainly three types:

- Share capital and loans - In addition to the share capital contribution, GoM also provides financial assistance by way of loans to PSUs from time to time.
- Special financial support - GoM provides budgetary support by way of grants and subsidies to PSUs as and when required.
- Guarantees - GoM also provides guarantees for the repayment of loans and interest thereon availed by PSUs from financial institutions.

Investment in State PSUs

1.8 As on 31 March 2014, the total investment (capital and long-term loans[4]) in 87 PSUs was ₹ 97,137.39 crore as per details given below:

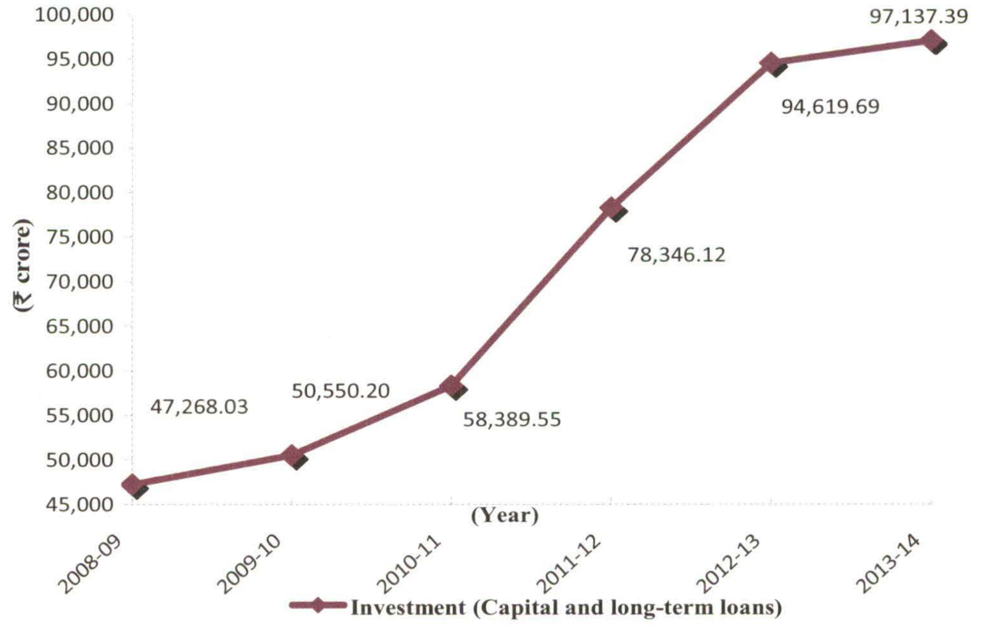
(₹ in crore)

Type of PSUs	Working PSUs				Non-working PSUs				
	No.	Capital	Long Term Loans	Total	No.	Capital	Long Term Loans	Total	Grand Total
Government companies	61	35,340.30	57,721.88	**93,062.18**	22	321.73	405.25	**726.98**	**93,789.16**
Statutory corporations	4	2,563.60	784.63	**3,348.23**	--	--	--	--	**3,348.23**
Total	**65**	**37,903.90**	**58,506.51**	**96,410.41**	**22**	**321.73**	**405.25**	**726.98**	**97,137.39**

As on 31 March 2014, of the total investment in PSUs, 99.25 *per cent* was in working PSUs and the remaining 0.75 *per cent* in non-working PSUs. This total investment consisted of 39.35 *per cent* towards capital and 60.65 *per cent* towards long-term loans. The investment has grown by

[4] This represents loans from the Government and financial institutions

105.50 *per cent* from ₹ 47,268.03 crore in 2008-09 to ₹ 97,137.39 crore in 2013-14 as shown in the graph below. The total investment in PSUs had increased by ₹ 2,517.70 crore during 2013-14 as compared to 2012-13 which was mainly due to increase in equity and loans to the Power Sector PSUs.



Special support and returns during the year

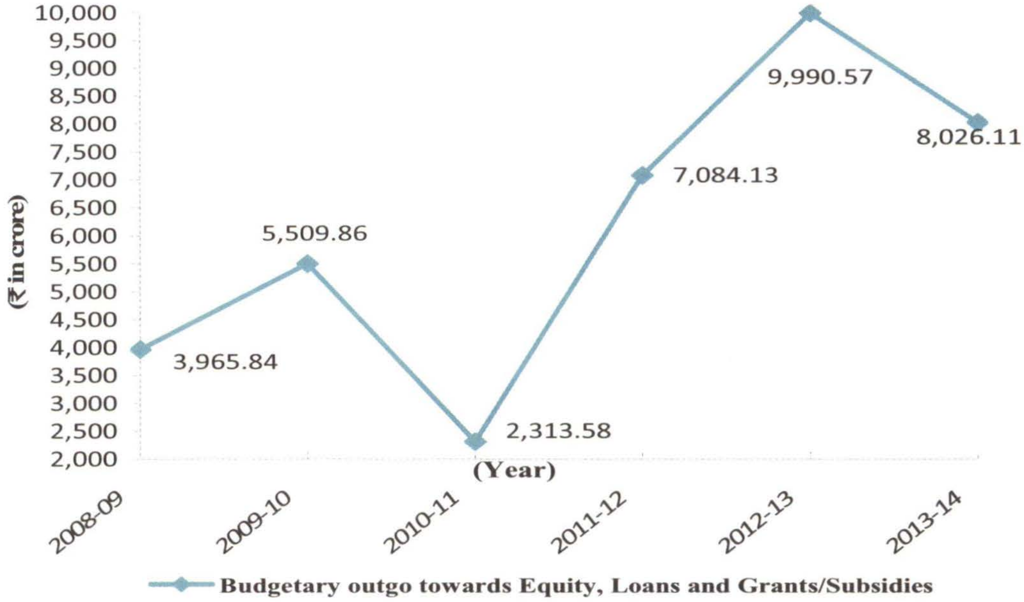
1.9 The GoM provides financial support to PSUs in various forms through annual budget. During the year 2013-14, GoM extended budgetary support of ₹ 8,026.11 crore to 20 PSUs. The summarised details of budgetary outgo towards equity, loans, grants/subsidies, guarantees issued, loans written off, loans converted into equity and interest waived are given below for three years ended 2013-14.

(₹ in crore)

Sl. No.	Particulars	2011-12		2012-13		2013-14	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
1.	Equity Capital outgo from budget	13	2,132.89	12	1,813.56	10	1,994.72
2.	Loans given from budget	6	280.66	4	2,100.99	--	--
3.	Grants/Subsidy paid	18	4,670.58	17	6,076.02	18	6,031.39
4.	**Total Outgo[5] (1+2+3)**	**24**	**7,084.13**	**20**	**9,990.57**	**20**	**8,026.11**
5.	Loans written off	2	17.88	1	0.24	1	0.002
6.	Interest/Penal interest waived	2	0.38	1	0.27	1	0.22
7.	**Total waiver (5+6)**	**3**	**18.26**	**2**	**0.51**	**1**	**0.222**

[5] Actual number of PSUs which received budgetary support in the form of equity, loans, Grants/ subsidy from State Government as reported by respective PSUs

The details regarding budgetary outgo towards equity, loans and grants/subsidies for past six years are given in a graph below.



The budgetary outgo in the form of equity, loans, grants/subsidies, *etc.* decreased from ₹ 9,990.57 crore in 2012-13 to ₹ 8,026.11 crore in 2013-14. Similarly, grants/subsidies decreased from ₹ 6,076.02 crore in 2012-13 to ₹ 6,031.39 crore in 2013-14. During the year 2013-14, the State Government waived loans/interest/penal interest of ₹ 0.22 crore due from one[6] PSU as against waiver of ₹ 0.51 crore during the previous year.

Guarantees for loans and outstanding guarantee fee

1.10 Guarantee for loans availed by PSUs from State Government is the third form of support to PSUs. During the year, the GoM had provided guarantee for loan of ₹ 190 crore and total commitment as on 31 March 2014 stood at ₹ 2,679.16 crore as summarised below:

(₹ in crore)

Particulars	Government companies		Statutory corporations		Total
	Number	Amount	Number	Amount	
Guarantees received	2	190.00	-	-	**190.00**
Commitment outstanding as on 31 March 2014	9	2,679.16	-	-	**2,679.16**

The amount of Guarantee commitments by the State Government as on 31 March 2013 increased from ₹ 1283.47 crore (7 PSUs) to ₹ 2,679.16 crore (nine PSUs) as on 31 March 2014. During the year 2013-14, the State Government had guaranteed loans of ₹ 190 crore availed by two[7] working Government companies. The Government charges fees for guarantees at

[6] Western Maharashtra Development Corporation Limited

[7] Maharashtra Agro Industries Development Corporation Limited and Maharashtra State Handicapped Finance and Development Corporation Limited

varying rates. Out of ₹ 252.86 crore payable by seven PSUs towards guarantee fee during the year 2013-14, they paid ₹ 35.76 crore leaving an unpaid balance of ₹ 217.10 crore from seven PSUs as on 31 March 2014.

Reconciliation with Finance Accounts

1.11 The Finance Accounts of GoM prepared by the PAG (A&E), Maharashtra, Mumbai and certified by CAG depicts the Government stake in PSUs in the form of equity, loans and guarantees. The figures in respect of equity, loans and guarantees outstanding as per records of PSUs should agree with that of the figures appearing in the Finance Accounts of the State. In case the figures do not agree, the concerned PSUs and the Finance Department should carry out reconciliation of differences. The position in this regard as on 31 March 2014 is stated below.

(₹ *in crore*)

Outstanding in respect of	Amount as per Finance Accounts	Amount as per records of PSUs	Difference
Equity	6,904.19	21,318.64	14,414.45
Loans	1,946.20	7,851.25	5,905.05
Guarantees	2,813.29	2,679.16	134.13

Audit observed that the differences occurred in respect of 48 PSUs and some of the differences were pending reconciliation for more than three years. The matter was brought to the notice of Chief Secretary/Principal Secretary (Finance) in November 2014. The State Government and the PSUs may take concrete steps to reconcile the differences in a time-bound manner.

Arrears in finalisation of accounts

1.12 The accounts of companies for every financial year are required to be finalised within six months from the end of the relevant financial year under Sections 166, 210, 230, 619 and 619-B of the Companies Act, 1956. Similarly, in case of Statutory corporations, their accounts are finalised, audited and presented to the Legislature as per the provisions of their respective Acts.

The table below provides the details of progress made by the working PSUs in finalisation of accounts as of 30 September 2014.

Sl. No.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
1.	Number of working PSUs	62	64	65	65	65
2.	Number of accounts finalised during the year	71	82	82	74	78
3.	Number of accounts in arrears	178	162	138	129	116
4.	Number of Working PSUs with arrears in accounts	56	53	53	52	51
5.	Extent of arrears	1 to 13 years.	1 to 14 years.	1 to 12 years.	1 to 7 years.	1 to 8 years
6.	Number of PSUs having arrears above five years	8	6	7	7	4

The performance in finalisation of accounts has improved during the year 2013-14 as compared to the previous year. However, during 2013-14, 14 working PSUs did not finalise any account which contributed to the accumulation of arrears in accounts. The number of companies whose accounts were in arrears for more than five years in 2013-14 has decreased compared to the previous year. This indicated that some effective action had been taken to liquidate the arrears of accounts of the companies. The PSUs should ensure that at least arrear accounts for one year in addition to current year's accounts are finalised during each year so as to liquidate the arrears.

The GoM had invested ₹ 1,292.90 crore (Equity: ₹ 585.51 crore, Loans: ₹ 179.02 crore and Grants: ₹ 528.37 crore) in 12 working companies during years for which accounts were not finalised as detailed in **Annexure-1**. In the absence of accounts and their subsequent audit, it cannot be ensured whether the investments and expenditure incurred have been properly accounted for and the purpose for which the amount was invested was achieved or not and thus Government's investment in such PSUs remained outside the control of the State Legislature.

1.13 In addition to above, there were arrears in finalisation of accounts by non-working PSUs. Of the 22 non-working PSUs, two[8] PSUs were under liquidation whose accounts were in arrears for three and 20 years respectively. Three[9] non-working PSUs had finalised accounts till 2013-14 and balance 17 PSUs had arrears of accounts for one to 15 years of which five[10] PSUs did not finalise any account during the year as detailed below:

No. of Non-working companies	Period for which accounts were in arrears	No. of years for which accounts were in arrears
1	1999-00 to 2013-14	15
1	2012-13 to 2013-14	2
15	2013-14	1

1.14 Of the four Statutory corporations, none had finalised their accounts for the year 2013-14.

[8] Irrigation Development Corporation of Maharashtra Limited and Sahyadri Glass Works Limited

[9] The Maharashtra Land Development Corporation Limited, Maharashtra State Textile Corporation Limited and The Pratap Spinning, Weaving and Manufacturing Company Limited

[10] Vidarbha Quality Seeds Limited, Maharashtra Rural Development Corporation Limited, Maharashtra Electronics Corporation Limited, The Gondwana Paints and Minerals Limited and Vidarbha Tanneries Limited

The following table shows the status of placement of various Separate Audit Reports (SARs) issued by the CAG on the accounts of Statutory corporations in the State Legislature.

Sl. No.	Name of Statutory corporation	Year up to which SARs placed in Legislature	Year for which SARs not placed in Legislature	
			Year of SAR	Date of issue to the Government
1.	Maharashtra Industrial Development Corporation	2010-11	2011-12	30-08-2013
2.	Maharashtra State Financial Corporation	2012-13	No pendency	
3.	Maharashtra State Road Transport Corporation	2012-13		
4.	Maharashtra State Warehousing Corporation	2012-13		

The GoM should ensure timely placement of SARs so that legislative control and financial accountability of the Statutory corporations are complied with.

1.15 The administrative departments have the responsibility to oversee the activities of these PSUs and to ensure that the accounts are finalised and adopted by these PSUs within the prescribed period.

As the position of arrears in finalisation of accounts was alarming, CAG took up the matter (September 2011) with the Ministry of Corporate Affairs (MCA) and suggested to devise special arrangements along with actionable issues to ensure enforcement of accountability. The MCA in turn, in consultation with the Institute of Chartered Accountants of India, devised (November 2011) a scheme which allowed the PSUs with arrears in accounts to finalise the latest two years accounts and clear the backlog within five years.

The Principal Accountant General had a meeting (April 2014) with the Additional Chief Secretary (Finance), GoM in connection with the arrears in accounts of PSUs. The persisting huge arrears of accounts revealed that PSUs did not fully avail this concession to make their accounts up to date.

Impact of non-finalisation of accounts

1.16 As pointed out in **Paragraph 1.12,** delay in finalisation of accounts may also result in risk of fraud and leakage of public money apart from violation of the provisions of the relevant acts. In view of the above state of arrears of accounts, the actual contribution of PSUs to the State GDP for the year 2013-14 could not be ascertained and their contribution to State exchequer was also not reported to the State Legislature.

Hence it is recommended that the Government may ensure timely finalisation of accounts with special focus on liquidation of arrears.

Performance of PSUs

Performance based on finalised accounts

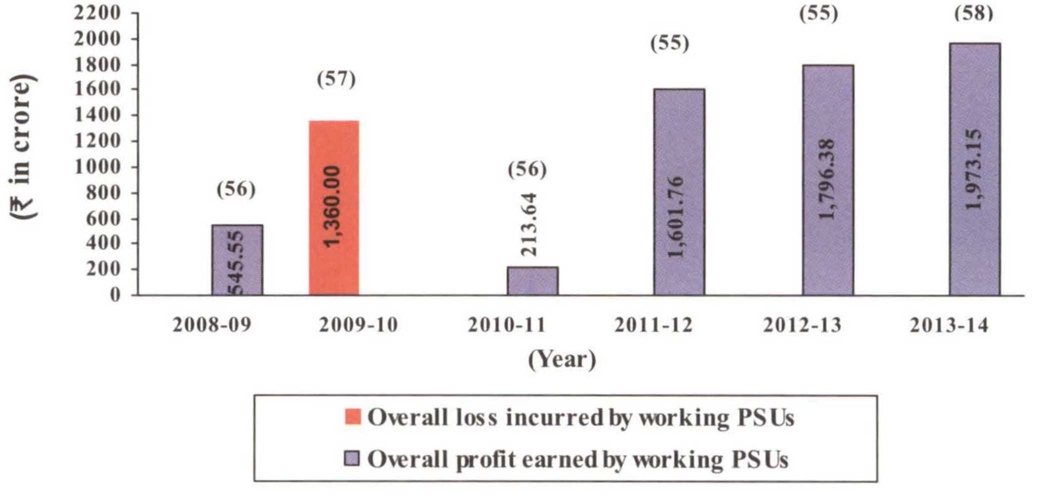
1.17 The table below provides the details of working PSUs' turnover and State GDP for the period 2008-09 to 2013-14.

(₹ in crore)

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Turnover	35,495.23	40,872.98	49,058.92	62,315.03	67,382.90	77,462.56[11]
State GDP	6,97,683.00	8,31,971.24	10,29,621.00	12,48,453	13,72,644.34	14,76,233[12]
Percentage of Turnover to State GDP	5.09	4.91	4.76	4.99	4.91	5.25

The percentage of turnover to State GDP increased from 5.09 in 2008-09 to 5.25 in 2013-14.

The overall profits/ (losses) earned/ incurred by the working PSUs during 2008-09 to 2013-14 are given below in a bar chart.



(Figures in bracket show the number of working PSUs excluding PSUs working on no profit no loss basis and/or that have not started commercial activities in respective years)

During the year 2013-14, out of 58 working PSUs, 40 PSUs earned profit of ₹ 3,335.98 crore and 18 PSUs incurred loss of ₹ 1,362.83 crore. Thus, overall profit earned by PSUs during 2013-14 was ₹ 1973.15 crore as against profit of ₹ 545.55 crore earned during 2008-09. Out of remaining seven PSUs, four[13] working PSUs prepared their accounts on 'no profit no loss basis' and three[14]

[11] Turnover is as per the latest finalised accounts as of September 2014

[12] Figures furnished by Ministry of Statistics and Programme Implementation as on 1 August 2014

[13] Maharashtra Patbandhare Vittiya Company Limited, Maharashtra Vikrikar Rokhe Pradhikaran Limited, Maharashtra State Police Housing and Welfare Corporation Limited and Krupanidhi Limited

[14] Maharashtra Industrial Gas Transmission Company Limited, MSMC Adkoli Natural Resources Limited and MSMC Warora Collieries Limited

PSUs were under construction, hence did not prepare profit and loss account. The major contributors to profit were Maharashtra State Electricity Transmission Company Limited (₹ 2,521.89 crore) and Maharashtra State Power Generation Company Limited (₹ 319.97 crore). Losses were incurred by Maharashtra State Electricity Distribution Company Limited (₹ 576.10 crore), Maharashtra State Road Development Corporation Limited (₹ 173.16 crore) and MSEB Holding Company Limited (₹ 142.56 crore).

1.18 The losses of working PSUs were mainly attributable to deficiencies in financial management, planning, implementation of project, running their operations and monitoring. A review of the latest Audit Reports of CAG showed that the State working PSUs incurred losses to the tune of ₹ 1,459.64 crore and infructuous investment of ₹ 11.37 crore, which were controllable with better management. Year wise details from Audit Reports are stated below.

(₹ in crore)

Particulars	2011-12	2012-13	2013-14	Total
Net Profit (loss)	1,601.76	1,796.38	1,973.15	**5,371.29**
Controllable losses as per CAG's Audit Report	433.60	870.01	156.03	**1,459.64**
Infructuous Investment	11.37	0.00	0.00	**11.37**

The above losses pointed out by Audit Reports of CAG are based on test check of records of PSUs. The actual controllable losses may increase if other transactions are considered. The above table shows that with better management, the losses can be minimised (or eliminated or the profits can be enhanced substantially). PSUs can discharge their role efficiently only if they are financially self-reliant. The above situation points towards a need for professionalism and accountability in the functioning of PSUs.

1.19 Some other key parameters of PSUs are given below.

(₹ in crore)

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Capital Employed (*Per cent*)	7.52	2.61	4.83	7.23	6.62	10.42[15]
Debt	25,834.25	27,704.79	34,345.95	47,416.00	59,053.64	58,911.16[16]
Turnover	35,495.23	40,872.98	49,058.92	62,315.03	67,383.89	77,462.73[17]
Debt/Turnover Ratio	0.73:1	0.68:1	0.70:1	0.76:1	0.88:1	0.76:1
Interest Payments	2,197.56	2,509.77	2,580.15	3,403.22	4,062.00	7,014.15
Accumulated Profit/ (Losses)	(7,006.90)	(8,539.13)	(9,614.61)	(11,552.02)	(11,219.48)	(10,036.05)

The percentage of return on capital employed by PSUs increased from 7.52 in 2008-09 to 10.42 in 2013-14. However, the accumulated losses of PSUs

[15] Return on capital for the year has been computed by considering profit before tax and after prior period adjustment

[16] Figures as of March 2014 were furnished by respective PSUs

[17] Turnover was as per accounts finalised by September 2014 including finalisation of accounts of earlier years

increased by 43.23 *per cent* from ₹ 7,006.90 crore in 2008-09 to ₹ 10,036.05 crore in 2013-14 thus indicating deteriorating financial position of PSUs. The debt turnover *ratio* deteriorated from 0.73:1 during 2008-09 to 0.76:1 during 2013-14.

1.20 The GoM formulated (June 2010) dividend policy under which all profit earning PSUs were required to declare dividend after complying with necessary provisions of the applicable Acts. The dividend rate was fixed (February 2012) at five *per cent* by the State Government. As per latest finalised accounts, 40 working PSUs earned an overall profit of ₹ 3,335.98 crore but only six PSUs which earned profit of ₹ 210.99 crore declared a dividend of ₹ 4.62 crore (at an average rate of 2.19 *per cent*).

Winding up of non-working PSUs

1.21 There were 22 non-working PSUs (all companies) as on 31 March 2014. This included two PSUs where the liquidation process was started and official liquidator was appointed by the Court. The numbers of non-working companies at the end of each year during past five years were as under:

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
No. of non-working companies	23	22	22	22	22

Three non-working PSUs whose accounts were finalised for the year 2013-14, incurred expenditure of ₹ 1.62 crore towards salary and establishment. This expenditure was financed through interest from fixed deposit and miscellaneous income of these PSUs.

The stages of closure in respect of non-working PSUs (all companies) as on 31 March 2014 are given below.

(Amount ₹ in crore)

Sl. No.	Particulars	Number of Companies	Investment	Accumulated profit/(loss)
1.	Total No. of non-working PSUs	22	726.98	(1,370.60)
2.	Under Liquidation	2	20.38	(29.15)
3.	Closure orders/instructions issued but liquidation process not yet started	10	570.43	(1,291.03)
4.	Decision not yet taken	9	132.80	(48.81)
5.	Under orders of State Government for revival	1[18]	3.37	(1.61)

The GoM may take early suitable decision on the nine non-working PSUs and action in case of the two PSUs under liquidation.

[18] Kolhapur Chitranagri Mahamandal Limited

Accounts Comments and Internal Audit

1.22 Forty seven working companies forwarded their 74 audited annual accounts to Principal Accountant General (PAG) during the year 2013-14. Of these, 35 accounts were selected for supplementary audit and Non Review Certificates were issued for 39 accounts. The Audit Reports of Statutory Auditors appointed by CAG and the supplementary audit by CAG indicate that the quality of maintenance of accounts needs to be improved substantially. The details of aggregate money value of comments of Statutory Auditors and CAG are given below.

(Amount: ₹ in crore)

Sl. No.	Particulars	2011-12		2012-13		2013-14	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in profit	16	245.87	18	81.21	9	61.51
2.	Increase in loss	13	65.36	4	23.06	9	431.30
3.	Non-disclosure of material facts	3	512.97	2	7.58	--	--
4.	Errors of classification	9	46.70	10	79.81	6	313.62
	Total		**870.90**		**191.66**		**806.43**

The value of comments of CAG and Statutory Auditors increased from ₹ 191.66 crore in 2012-13 to ₹ 806.43 crore in 2013-14 indicating that the PSUs need to improve the quality of their accounts.

During the year, the Statutory Auditors had given unqualified certificate for 28 accounts, qualified certificate for 40 accounts and adverse certificate (which means that accounts do not reflect a true and fair view) for six accounts.

1.23 Similarly, four working Statutory corporations forwarded their annual accounts to the PAG during the year 2013-14. Of these, the accounts of two Statutory corporations were audited solely by CAG. The accounts of the remaining two were selected for supplementary audit. The details of aggregate money value of comments of Statutory Auditors and CAG are given below.

(Amount: ₹ in crore)

Sl. No.	Particulars	2011-12		2012-13		2013-14	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in profit	2	25.23	3	10.02	1	0.01
2.	Increase in loss	1	0.06	1	0.88	--	--
3.	Non-disclosure of material facts	--	--	1	223.72	1	1.96
4.	Errors of classification	1	0.46	1	23.23	1	0.22
	Total		**25.75**		**257.85**		**2.19**

During the year two Statutory corporations viz. Maharashtra State Warehousing Corporation and Maharashtra State Financial Corporation received qualified certificates for their accounts. Maharashtra State Road Transport Corporation got unqualified certificate and certification of accounts (2012-13) of Maharashtra Industrial Development Corporation is in progress.

1.24 The Statutory Auditors (Chartered Accountants) are required to furnish a detailed report upon various aspects including internal control/internal audit system in the companies audited in accordance with the directions issued to them by CAG under Section 619(3) (a) of the Companies Act, 1956 and to identify areas which needed improvement. An illustrative resume of major comments made by the Statutory Auditors for possible improvement in the internal audit/internal control system in respect of 37 companies whose accounts were received in 2012-13 and 29 companies whose accounts were received in 2013-14 are given below.

Sl. No.	Nature of comments made by Statutory Auditors	Number of companies where recommendations were made
1.	Non-fixation of minimum/maximum limits of store and spares	14
2.	Absence of internal audit system commensurate with the nature and size of business of the company	25
3.	Non maintenance of cost record	11
4.	Non maintenance of proper records showing full particulars including quantitative details, situations, identity number, date of acquisitions, depreciated value of fixed assets and their locations	20
5.	Non-formation of Audit committee	19
6.	Delegation of powers and duties and responsibilities not adequately defined	14
7.	System of accounts and financial control	24
8.	System of monitoring timely recovery of outstanding dues.	29
9.	Existence of investment policy	19

Recoveries at the instance of audit

1.25 During the course of audit conducted during 2013-14, recoveries of ₹ 207.20 crore were pointed out to the Management of various PSUs. An amount of ₹ 40.45 crore was recovered during the year 2013-14.

Follow-up action on Audit Reports

1.26 Action Taken Notes (ATNs) to 144 recommendations contained in 18 Reports of the COPU presented to the State Legislature between April 1996 and December 2014 had not been received up to December 2014 as indicated below:

Year of COPU Report	Total no. of Reports involved	No. of recommendations where ATNs not received
1996-97	1	6
1997-98	1	13
2005-06	1	5
2007-08	2	16
2008-09	1	7
2010-11	7	34
2012-13	3	43
2013-14	2	20
Total	**18**	**144**

Explanatory Notes (EN) outstanding

1.27 Audit Reports of the CAG represent culmination of the process of scrutiny, starting with initial inspection of accounts and records maintained in the various offices and departments of Government. It is, therefore, necessary that they elicit appropriate and timely response from the Executive. Finance Department of the GoM issues instructions every year to all administrative departments to submit explanatory notes to paragraphs and performance audits included in the Audit Reports within a period of three months of their presentation to the Legislature, in the prescribed format, without waiting for any notice or call from the Committee on Public Undertakings (COPU).

Details of Audit Report wise paragraphs/performance audits for which replies were awaited as on December 2014 were as under:

Audit Report	Date of placement of Audit Report in the State Legislature	Number of			EN awaited		
		Performance audits	Paragraphs	Total	Performance audits	Paragraphs	Total
2008-09	23 April 2010	2	21	**23**	1	2	**3**
2009-10	21 April 2011	2	21	**23**	1	2	**3**
2010-11	17 April 2012	2	20	**22**	--	14	**14**
2011-12	18 April 2013	2	21	**23**	1	13	**14**
2012-13	14 June 2014	3	15	**18**	3	15	**18**
Total		**11**	**98**	**109**	**6**	**46**	**52**

From the above it could be seen that out of 109 paragraphs/performance audits, EN to 52 paragraphs/performance audits pertaining to the Audit Report for the year 2008-09 to 2012-13 were awaited (December 2014).

Chapter II

Performance Audit of Government Company

Chapter II

Performance Audit of Government Company

Maharashtra State Road Development Corporation Limited

Highlights

Maharashtra State Road Development Corporation Limited (Company) was incorporated in August 1996 under the Companies Act, 1956. The main objective of Government of Maharashtra (GoM) to form the Company was to implement road infrastructure projects through Public Private Participation (PPP) and arrange funds for the projects. The GoM assigned total 26 projects to the Company upto 2005-06 and no projects were assigned thereafter. The Company had taken up 18 projects funded through borrowings and grants and remaining eight projects were awarded on Build, Operate and Transfer (BOT) basis. The project cost was to be recovered through toll collection. Performance Audit covered the working of the Company for five years from 2009-10 to 2013-14.

(Paragraph 2.1)

The Company incurred losses during the period of five years under review mainly due to non commencement of toll collections, collection of toll below the estimated revenue and closure of few toll stations before recovery of entire project cost. However, losses of ₹ 148.06 crore incurred during 2009-10 decreased to ₹ 8.86 crore during 2013-14 (as per provisional accounts). The long term borrowings also reduced from ₹ 3,063.53 crore in 2010-11 to ₹ 1,627.36 crore in 2013-14. The net worth of the Company remained negative throughout the four years.

(Paragraphs 2.8.1 and 2.8.2)

The Company completed the Nagpur-Aurangabad-Sinnar-Ghoti-Mumbai Road improvement project (NASGM) at a cost of ₹ 765.94 crore. The actual toll recovery for NASGM was far less than estimated toll collection of ₹ 193 crore per annum. The GoM decided (June 2014) to close all eight toll stations across NASGM road and proposal for reimbursement of ₹ 1,795 crore (including interest and other cost) submitted by the Company was pending with GoM.

The Company also executed eight Integrated Road Development Programme (IRDP) projects at a total cost of ₹ 1,272.46 crore which was met through borrowings and Capital Contributions from GoM and Local Bodies. The collection of toll for IRDP projects at Amravati, Pune and Nanded completed during 2010-13 was not started due to non-issue of no objection certificate by the Pune Municipal Corporation and public demand for not to levy toll.

(Paragraphs 2.10.2, 2.10.4 and 2.12.6)

The Company had no mechanism in place for periodical inspection of road conditions for preparation of annual plan and plan for special repairs. The Company had to close four toll stations on NASGM and IRDP, Aurangabad for one to 563 days during 2010-11 to 2013-14 due to public agitation against bad roads.

(Paragraphs 2.11.1)

The Company introduced Revenue Sharing Clause (RSC) in short term toll collection contracts awarded from September 2011. The RSC provided that after the contractor collects the amount offered under the contract, any excess revenue shall be remitted to the Company after deducting five *per cent* towards profit and five *per cent* towards administrative charges. However, the Company did not include any mechanism in the agreements for assessment of such excess revenue.

(Paragraph 2.12.2)

There were delays in awarding 12 toll contracts which ranged from one to 20 months and the loss of revenue worked out to ₹ 13.24 crore considering the rates received against subsequent tenders.

(Paragraphs 2.12.4)

Contractors were to pay weekly/monthly/ yearly or whole upfront payment of toll to the Company. However, there was no monitoring system in place to check the arrears and an amount of ₹ 15.10 crore was recoverable from 27 contractors even after adjusting security deposits.

(Paragraph 2.12.7)

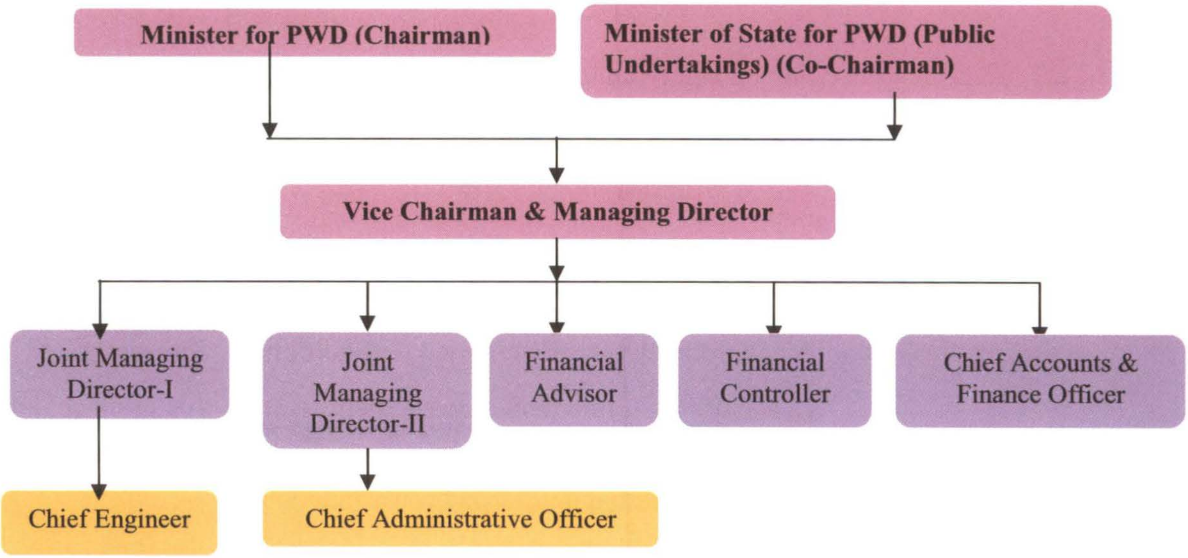
Introduction

2.1 The Government of Maharashtra (GoM), Public Works Department (PWD) formulated (July 1996) a policy to finance road development projects through Public Private Participation (PPP) for improving existing roads, construction of roads and Rail/Road over Bridges (ROBs) in the State. The various modes for PPP projects were Build, Operate and Transfer (BOT) contracts, Concession Agreements, Special Purpose Vehicle, Joint Venture *etc.* The construction/development of road and other related infrastructure in the State are carried out by PWD, Mumbai Metropolitan Region Development Authority (MMRDA), Zilla Parishads, Municipal Corporations (MC), *etc.* Maharashtra State Road Development Corporation Limited (Company) was also incorporated (August 1996) under the Companies Act, 1956 with the main objective to implement road infrastructure projects through PPP and arrange funds for the projects. The GoM constituted (November 1996) a Cabinet Infrastructure Committee (CIC) under the Chairmanship of Chief Minister which is an Apex Body for approving the infrastructure projects above ₹ 25 crore. The GoM assigned total 26 projects to the Company up to 2005-06 and no projects were assigned thereafter. The pioneer projects like Mumbai-Pune Expressway (MPEW), Bandra-Worli Sea Link (BWSL), construction of 37 bridges/flyovers in and around Greater Mumbai area and Nagpur-Aurangabad-Sinnar-Ghoti-Mumbai Road improvement project (NASGM) were completed by the Company. Integrated Road Development Programme (IRDP) projects in 10[19] districts, were among the 26 projects assigned to the Company as a concessionaire for a period varying up to 30 years. Accordingly, the Company was allowed to recover project cost from end users through toll collection. The Company had taken up 18 projects funded through borrowings and grants and remaining eight[20] projects were awarded on BOT basis. The glossary of terms used in the Performance Audit is given in **Annexure-2**.

Organisational set up

2.2 The Management of the Company is vested in the Board of Directors (BoD) comprising of seven Directors.

The organisational chart of the Company is as under:



[19] Amravati, Aurangabad, Baramati, Kolhapur, Latur, Nagpur, Nanded, Nandurbar, Pune and Solapur

[20] Augmentation of IRDP Baramati, Bhiwandi Kalyan Shil Phata, Chalisgaon By-pass, IRDP Kolhapur, Karmala By-pass, Katol By-pass, Miraj ROB and ROB at Warora District Chandrapur

Scope of Audit

2.3 The Performance Audit (PA) was conducted during March 2014 to July 2014 covering period of five years from 2009-10 to 2013-14. The audit findings were arrived at after test check of records of PWD, Company's Head Office (HO) and three field offices (Aurangabad, Nagpur and Pune). For detailed scrutiny, 10 projects were selected from 18 projects executed by Company and one project out of eight executed on BOT basis on the basis of judgemental sampling (refer **Annexure-3**). Audit also selected 41 toll collection contracts for eight projects including securitisation of five Mumbai Entry Points and 49 commercial contracts on the basis of high value out of total 81 and 97 contracts respectively awarded during the period of review.

The findings of PA Reports on MPEW and BWSL projects were included in the earlier Audit Reports (Commercial) for 2004-05 and 2006-07, GoM which were discussed (2007-08 and 2013-14) by the Committee on Public Undertakings (COPU). On discussion of PA on MPEW, COPU recommended (November 2007) to review the bonus clause for early completion, appointment of High Level Committee to study the system for toll recovery and Vigilance Squad to monitor toll collection. The COPU during discussion on BWSL recommended (December 2013) to take up project of Worli-Nariman Point Sea Link to enhance the utility of existing sea link, recovery of penalty for delay from contractors and change in the working procedures to safeguard the financial interest of the Company.

Audit objectives

2.4 The Audit objectives were to ascertain as to whether:

- The State policy/long term plan for execution of infrastructural projects was in place;
- Projects/toll collection contracts were awarded in time after following due tendering process;
- Works were executed as per terms of contract and collection of toll was in accordance with the terms and conditions of contract;
- An effective financial Management system was in place; and
- Performance of the Company was effectively monitored and internal control/internal audit system was adequate.

Audit criteria

2.5 Audit criteria adopted for achieving the stated audit objectives were derived from following documents:

- Vision Documents of the Company and Road Plan of GoM (1981-2001 and 2001-2021);
- Notifications/Government Resolutions issued by GoM;

- Tender documents and agreements executed with private parties for execution of projects and collection of toll;
- Standards prescribed by Indian Road Congress (IRC), Guidelines issued by Ministry of Road Transport and Highways (MORTH) and Quality Assurance Manual of the Company;
- The Bombay Motor Vehicles Tax (BMVT) Act, 1958; and
- Agenda and Minutes of Board Meetings and Information System reports of the Company.

Acknowledgement

2.6 Audit acknowledges the co-operation and assistance extended by the Company at various stages of conducting the Performance Audit.

Audit findings

2.7 The audit objectives were discussed with the Company during an Entry Conference held on 26 March 2014. The draft PA Report was issued to the Management/GoM on 29 September 2014. The Company replied to the audit findings on 17 November 2014. The audit findings were also discussed in an Exit Conference held on 26 November 2014 which was attended by the Secretary (PWD), GoM and Vice Chairman and Managing Director of the Company. The views expressed by the Company and the Government in the meeting/replies have been considered while finalising the PA Report. The audit findings are discussed below:

Financial position and working results

Financial position

2.8.1 The table given below depicts the financial position of the Company for the four[21] years ended 31 March 2014:

(₹ in crore)

Particulars	2010-11	2011-12	2012-13	2013-14
Equity and liabilities				
Paid up capital	773.56	773.56	773.56	773.56
Reserves and surplus[22] Positive(+)/Negative(-)	(-) 1,036.56	(-) 1,062.50	(-)945.71	(-)910.68
Free reserve	1.00	1.00	1.00	1.00
Non-current liabilities				
Deferred Government grants	161.72	152.23	144.13	133.24
Long term borrowings	3,063.53	2,531.47	2,155.13	1,627.36
Long term provisions, trade payables and other liabilities	3,259.97	3,218.71	3,078.24	2,922.41

[21] Figures for 2009-10 were not considered as the format for preparation of accounts (Schedule VI) was revised from 2011-12 with corresponding figures for previous year

[22] Reserves and surplus includes capital reserve, revaluation reserve and Government grant minus accumulated losses

Particulars	2010-11	2011-12	2012-13	2013-14
Current liabilities				
Trade payables, other current liabilities & short term provisions	1,554.65	1,612.32	1,314.10	1,672.00
Total	**7,777.87**	**7,226.79**	**6,520.45**	**6,218.89**
Assets				
Non-current assets				
Tangible assets	5,599.86	5,339.63	5,041.19	4,747.43
Capital work in progress	272.87	311.66	443.69	489.85
Non-current investments	1.05	1.05	1.05	1.05
Long term loans and advances	13.15	9.85	8.90	0.10
Current assets, loans and advances	1,890.94	1,564.60	1,025.62	980.46
Total	**7,777.87**	**7,226.79**	**6,520.45**	**6,218.89**
Debt Equity Ratio	4.87:1	4.09:1	3.15:1	3.00:1
Net worth[23] (Negative)	(262.00)	(287.94)	(171.15)	(136.12)

(Source: Certified accounts of the Company upto 2011-12 and the provisional figures for the year 2012-13 and 2013-14 furnished by the Company)

It could be seen from above that the improvement in reserves and surplus, debt-equity *ratio* and net worth during the above four years was mainly due to repayment of loans from the upfront payment received against securitisation of five[24] Mumbai Entry Points (MEP) during 2010-11. However, reserves and surplus as on 31 March 2014 was still negative due to operational losses as discussed in the next paragraph on working results.

Working results

2.8.2 The working results of the Company for five years ended 31 March 2014 were as under:

(₹ in crore)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Income					
Income from operation	551.89	497.63	437.13	547.80	552.86
Cess on fuel from GoM	28.16	27.00	70.00	70.00	151.80
Other income	6.92	66.20	132.18	8.46	16.88
Total	**586.97**	**590.83**	**639.31**	**626.26**	**721.54**
Expenditure					
Employees benefit expenses	10.21	10.36	11.25	12.77	12.73
Operation and maintenance of projects	18.13	23.60	60.32	59.53	93.81
Other expenses	18.70	20.48	23.48	15.89	17.54
Finance charges	433.97	501.84	424.67	289.13	271.57
Depreciation & amortisation expenses	254.02	292.97	293.73	294.33	334.75
Total	**735.03**	**849.25**	**813.45**	**671.65**	**730.40**
Profit (+)/Loss (-) before tax and prior period adjustments	(-)148.06	(-)258.42	(-)174.14	(-)45.39	(-)8.86
Add (+)/Less (-): Prior period adjustments	(+)18.55	(+)0.86	(+)0.98	(-)0.28	(-)0.05
Profit (+)/Loss (-) before tax	(-)129.51	(-)257.56	(-)173.16	(-)45.67	(-)8.91
Tax Expenses	-	0.07	-	-	-
Profit (+)/Loss(-) after tax	(-)129.51	(-)257.49	(-)173.16	(-)45.67	(-)8.91

(Source: Certified accounts of the Company upto 2011-12 and the provisional figures for the year 2012-13 and 2013-2014 furnished by the Company).

[23] Net worth = Equity + Free reserves + Capital reserves (-) Accumulated losses

[24] Airoli bridge, Dahisar on Western Express Highway, Mulund on Eastern Express Highway, Mulund-Thane (West) on LBS Marg and Vashi on Sion-Panvel Highway

The Company incurred losses during each of the five years mainly due to non commencement of toll collections in respect of IRDPs at Amravati, Nanded and Pune as discussed in Paragraph 2.10.4 and 2.12.6, collection of toll below the expected revenue in NASGM project and closure of certain toll stations such as Nandurbar (District Dhule) and Latur IRDP projects before recovery of entire project cost.

Planning

2.9 The GoM did not enter into agreements with the Company specifying terms and conditions for execution of 26 projects which were assigned during 1997 to 2006. Further, the scheduled dates of completion of the projects were also not specified. The proposals of the Company for augmentation of MPEW, Bandra-Versova Sea Link and Water Transport projects submitted (December 2008 to July 2012) were yet to be approved by GoM (December 2014).

Execution of projects

Execution of infrastructure projects

2.10.1 The Company executed 18 projects on its own in various phases and eight projects were assigned on BOT basis. Each project executed by the Company involves various sections/components of works for which separate contracts were awarded.

Completed sections /components of projects

The Company incurred total expenditure of ₹ 8,200.66 crore on various sections/components of 18 projects upto March 2014. During the period under review the Company incurred the expenditure of ₹ 1,615 crore on various completed components of twelve projects. The expenditure on completed sections/ components of four projects selected by audit was ₹ 254.53 crore. In this connection, Audit observed the following:

Nagpur-Aurangabad-Sinner-Ghoti-Mumbai Road improvement project (NASGM)

2.10.2 The Government of Maharashtra decided (December 1999) to undertake the improvement of NASGM road (approximate 700 Kms) based on traffic analysis and viability study conducted (1998) by the consultant - M/s Lea Associates. The work was bifurcated in 13 sections under 19 packages. The GoM declared (June 2002) the Company as an entrepreneur to implement the project through PPP and authorised toll collection at 13 toll stations across the road over a period of 27 years. The total cost of the project was estimated at ₹ 700 crore and project was assessed as viable with an estimated toll income of ₹ 193 crore per annum. The improvement of 600 Kms (approx.) of road was completed by the Company in a phased manner between June 2004 and March 2014 at a total cost of ₹ 765.94 crore except road of 6.72 Km of package No.13 (Lasur to Vaizapur, Aurangabad District) due to land dispute (November 2014). The balance construction of 82.29 Kms of road was carried out by PWD and retained toll collection rights at Lahuki toll station (near Jalna). In this connection, audit observed the following:

- The Company completed the part of NASGM road of 81.63 Km (Talegaon-Karanja) between October 2004 and December 2009 at a total cost of ₹ 84.50 crore. However, toll collection for this road could not be commenced due to unmotorable condition of the stretch completed in 2004 by the time of completion of the next stretch. Similarly, toll for another road of 31 Km between Vaijapur-Punthamba Phata (sanvastar toll station) completed between December 2005 and March 2009 could not be started due to unmotorable condition of road.

- The project was not viable due to lower recovery of toll than estimated. The toll collection for completed sections was ₹. 29.02 crore during 2002-2003 to 2007-2008. The Company envisaged (March 2008) loss of ₹ 2,271.33 crore (Net Present Value) over a period of 30 years if it was to operate the project and therefore decided to assign the project for operation on BOT basis. Accordingly, the Company invited (January 2009) tender for operation of project on BOT basis and the lowest Viability Gap funding (VGF) of ₹ 1,040 crore was received. However, the GoM informed (October 2009) its inability to provide funding in view of the financial constraints. The Company continued to operate the eight toll stations of the project and collected toll of ₹ 225.82 crore up to March 2014 and incurred expenditure of ₹ 97.21 crore on maintenance.

- The GoM decided (June 2014) to close all the toll stations across the NASGM road from 1 July 2014. The reasons for closure of toll collection though called for were not furnished by the GoM (December 2014). The Company submitted proposal (June 2014) to the GoM for recovery of the balance project cost of ₹ 1,795 crore inclusive of interest, administrative cost and the internal return at 12 *per cent* per annum. The final decision of GoM was awaited (December 2014). Thus the funds of ₹ 1,795 crore remained blocked up without any return.

Excess payment to PMCs

2.10.3 The Company appointed Project Management Consultants (PMCs) for post tender activities for execution of each section/component of the project. As per agreements executed (April 2008/April 2010) with two[25] PMCs, consultancy fee was payable on lumpsum basis (₹ 93.50 lakh) to one PMC and at the rate of 2.49 *per cent* of the estimated cost (₹ 25 crore) to another PMC. Audit, however observed that consultancy fee was paid on the basis of actual cost incurred instead of restricting the same to lumpsum/estimated cost put to tender. As a result, there was excess payment of ₹ 23.53 lakh to two PMC. The Nagpur Project Office of the Company stated (June 2014) that in case of reduction in project cost fee to be paid to the consultant would be same if it was regulated on the basis of estimated cost. Hence, fee was paid on the basis

[25] M/s Gherzi Eastern Limited, Mumbai (excess payment of ₹ 3.81 lakh) and M/s Technogem Consultants Private Limited (excess payment of ₹19.72 lakh)

of actual cost instead of estimated cost. The reply was not convincing as the actual cost of the project was more than the estimated cost and payment of fee should have been restricted to estimated cost of the work put to tender.

IRDP projects

2.10.4 Integrated Road Development Programme projects envisaged improvement of road network within cities by constructing roads/ROBs/under-bridges and flyovers to improve the traffic flow. All the 10 IRDP projects were executed by the Company except two at Baramati[26] and Kolhapur which were executed on BOT basis. The cost of these projects was to be recovered through toll collections varying up to 30 years. The total cost of ₹ 1,272.46 crore was incurred by the Company on eight completed/ongoing IRDP projects up to March 2014. The cost of these projects was met through borrowings, capital contribution from respective MCs, Urban Development Department and MLA/MP development funds. Details of funds arrangement for three projects at Amravati, Aurangabad and Nagpur selected by Audit were as under:

(₹ in crore)

IRDP project and date of assignment by the GoM	Cost of the project		Financed through			Remarks
	Estimated	Actual	Capital contribution	Loan	Total fund	
Nagpur (February 2001)	269.66	441.22	281.83	217.00	498.83	63 out of 75 specified works were completed and put to use. Two were in progress. Balance work deleted.
Aurangabad (February 2001)	117.62	181.08	52.75	25.41	78.16	15 out of 30 specified works were completed and put to use. Three were in progress. Five work deleted and balance work yet to be taken up (December 2014)
Amravati (February 2002)	89.40	156.32	117.35	24.09	141.44	50 out of 55 specified works were completed and put to use. Five works were deleted.
Total	**476.68**	**778.62**	**451.93**	**266.50**	**718.43**	

It was seen from above that the cost of three projects increased from ₹ 476.68 crore to ₹ 778.62 crore due to delay in land acquisition, shifting of utility services and shortage of funds. The shortfall of ₹ 60.19 crore[27] was met through diversion of funds from other projects.

Audit observed that though the notification for recovery of toll at IRDP Amravati was issued (January 2010), the Company could not commence toll due to public demand for not to levy toll. Accordingly the GoM stayed (June 2011) the toll collection. The decision for recovery of toll was yet to be resolved (December 2014). Thus the funds of ₹ 38.97 crore spent by the Company on the project remained blocked up without any return till date (December 2014).

The Management stated (November 2014) that the actual cost of project will be submitted to GoM for approval.

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[26] The project was initially executed by the Company and thereafter it was awarded on BOT basis with augmentation works

[27] ₹ 778.62 crore *less* ₹ 718.43 crore

Non recovery of cost on shifting of electrical poles/lines

2.10.5 The Government of Maharashtra decided (February 2001/ February 2002) that 50 *per cent* of the cost of shifting of electrical poles/lines in respect of IRDP, Aurangabad and 100 *per cent* in respect of IRDP, Amravati should be borne by Maharashtra State Electricity Distribution Company Limited (MSEDCL) (erstwhile Maharashtra State Electricity Board). The total cost of shifting of electrical poles/lines incurred by the Company was ₹ 15.62 crore (IRDP Aurangabad: ₹ 1.96 crore and IRDP Amravati: ₹ 13.66 crore). Audit noticed that the Company had not raised claim for recovery of ₹ 14.64 crore (IRDP Aurangabad: ₹ 0.98 crore and IRDP Amravati: ₹ 13.66 crore) from MSEDCL so far (October 2014).

The Management stated (November 2014) that they raised the claims in July 2014 on MSEDCL for Aurangabad project. However, the Company was silent on recovery of ₹ 13.66 crore for Amravati project.

Ongoing sections/components of the projects

2.10.6 The Company incurred expenditure of ₹ 477.43 crore upto 31 March 2014 on various ongoing sections/components of 18 projects implemented by the Company and ₹ 12.42 crore on feasibility study of 10 projects which were not yet assigned by GoM (December 2014). The details of expenditure of ₹ 424.45 crore incurred upto 31 March 2014 on ongoing sections/components of eight projects selected for audit and audit observations thereon were as under.

Sl. No.	Name and scope of the Project and date of assignment	Estimated cost of pending/ ongoing work (₹ in crore)	Scheduled completion date of the project	Cost incurred on ongoing sections of the project (₹ in crore)	Audit observations
1	Mumbai Trans Harbour Link (Sewri Nava Sheva Harbour Link consisting of freeway grade road Bridge connecting Mumbai with Navi Mumbai)-July 1997	9,630	GoM had not specified scheduled completion of project while entrusting the work to the Company.	13.65	The expenditure was incurred on the feasibility study of the project. However, the project was assigned (February 2009) to MMRDA for execution. The GoM was yet to reimburse the expenditure incurred by the Company (December 2014).
2	Water Transport, Mumbai (Development of Water Transport facilities at Pheri warf, Nerul and Mandva) –February 2002	750		13.16	The Company invited (July 2008/June 2010) tenders for development of the project on BOT basis. However, the response was very poor. The Company again invited (March 2012) tender for three packages out of total five packages. The decision for awarding of work was pending with GoM (December 2014).

Sl. No.	Name and scope of the Project and date of assignment	Estimated cost of pending/ ongoing work (₹ in crore)	Scheduled completion date of the project	Cost incurred on ongoing sections of the project (₹ in crore)	Audit observations
3	Mumbai Flyovers (Construction of 40 flyovers/bridges) – September 1997	302.44		34.04	The Company has already completed construction of 37 flyovers/bridges which are operational. Presently approval for construction of three flyovers was pending (December 2014).
4	Western Freeway (Bandra -Worli-Nariman Point Sea Link) –February 1998	8,863		13.40	The Company has already completed Bandra- Worli Sea Link which is operational. Feasibility study for remaining stretch is under progress (December 2014).
5	IRDP Aurangabad (Construction of total 30 roads/flyovers/bridges)- February 2001	108.91		105.86	The Company completed 15 components of work which are in use. The construction of three ROBs was in progress (December 2014). Three works were awarded in February 2014 to be completed by February 2016
6	IRDP Nagpur (Construction of total 75 roads/ flyovers/bridges)- February 2001	54		97.80	The Company had already completed 63 components and the construction of one RoB was in progress. The work was still pending due to Encroachments. (December 2014)
7	IRDP Pune (Construction of total 33 roads/ flyovers/ bridges)- February 2001	9.28		9.28	The construction of one flyover was completed, however, the amount is yet to be capitalised (December 2014)
8	NASGM road (700 Kms)- June 2002	17.11	November 2014	137.26	The work of balance road of 7 Km was in progress. Actual cost includes interest and land cost which are yet to be capitalised
	Total	**19,734.74**		**424.45**	

Audit observed that certain components/sections of projects assigned to the Company during July 1997 to June 2002 at an estimated cost ₹ 19,734.74 crore are yet to be completed (December 2014). Delayed completion of these may result in cost overrun and may also affect financial viability of these projects.

Maintenance of roads

2.11.1 The assets (roads/bridges/flyover *etc.*) of three projects which are securitised by the Company and eight projects executed on BOT basis are to be maintained by the respective contractors. The assets of seven projects were maintained by the toll collection contractors as per contracts awarded upto March 2010. The Company maintained the assets of all the projects thereafter as the maintenance by the contractors was not satisfactory.

Audit observed that as per guidelines issued by MORTH, maintenance needs are to be assessed every year as part of planning and assessment can be by visual rating, roughness measurements, benkelman beam deflection measurement, skid resistance measurement *etc*. The PWD prescribed (January 2003) the norms for annual maintenance at the rate of 0.5 *per cent* of the construction cost of bridges and one *per cent* of the cost of road. Similarly, a norm for special repairs in seventh year was at the rate of three *per cent* of the cost of bridge and six *per cent* of the cost of the roads. Audit noticed that the Company had no mechanism in place for periodical inspection of road conditions for preparation of annual plan *vis-a-vis* plan for special repairs to ensure that each road and other project assets are maintained as per standards.

Audit further noticed that as per the terms of contracts awarded for collection of tolls with maintenance, contractors were liable to submit information about conditions of road along with details of repairs carried out during every month by 10th of the next month in such formats as prescribed by the Company. Audit, however observed that no such reports were obtained during audit period from any of the contractors to whom toll collection contracts were awarded along with maintenance of roads.

Public agitation against toll on account of bad road conditions

2.11.2 The Company inspected road conditions on the basis of public agitation against the bad conditions of road. There were complaints from public about bad condition of ROB at Nallasopara (District-Thane) which was maintained by contractor. On verification of complaint, the Company informed (November 2010) the contractor to carry out the repairs. However, the contractor did not repair the ROB and the Company repaired (November 2010) the same at the risk and cost of the contractor by incurring expenditure of ₹ 25.08 lakh. Audit observed that though the Company was aware of the bad condition of the ROB, performance security of ₹ 14.53 lakh was allowed to expire (August 2011). Thus, chances of recovery of ₹ 25.08 lakh from the contractor were remote as the Company had SD of ₹ 2.77 lakh only.

Audit also observed that there were public agitations against bad conditions of NASGM road and IRDP Aurangabad in respect of four[28] toll stations during 2010-11 to 2013-14. These toll stations remained closed for one to 563 days due to which toll of ₹ 4.59 crore could not be recovered.

The Management stated (November 2014) that repairs could not be carried out due to paucity of funds. The reply was not acceptable as it was the responsibility of the Company to maintain roads as per standards since the cost of maintenance was also being recovered through toll.

[28] NASGM-Deole, Dusarbeed, Shevati and IRDP Aurangabad-Lasur

Recovery of toll

2.12.1 The State Policy of June 2000 revised from time to time up to July 2009 stated that (a) Toll should not be recovered if the project is funded through budget allocation; (b) The average distance between two stations should be 35-40 Kms; (c) The place of toll station shall be decided by the concerned Regional Chief Engineer of PWD and (d) GoM will declare toll rates for projects costing up to ₹ 400 crore and toll rates are to be independently decided in respect of projects costing more than ₹ 400 crore.

The recovery of project cost is done through toll collection by awarding short term contracts and securitisation contracts. In securitisation contract the project cost is recovered in advance and contractor is assigned rights to recover the toll and maintain the asset during the specified period. The projects are also executed on BOT basis. In BOT contracts, private sector builds an infrastructure project, operates it and after recovery of the cost transfers ownership of the project to the Government.

As on 31 March 2014, 65 toll stations of eighteen projects were in operation (eight on BOT, seven operated by the Company and three securitised). It was observed that the Company received upfront payment of ₹ 3,158.40 crore under three[29] securitisation contracts and ₹ 65 crore for IRDP Baramati which was completed by the Company and thereafter assigned (October 2010) on BOT basis with augmentation work. Audit of one securitisation contract for five MEPs and 40 short term toll collection contracts awarded during 2009 -14 revealed the following:

Short term toll collection contracts

Revenue sharing

2.12.2 The Company introduced Revenue Sharing Clause (RSC) in short term toll collection contracts awarded from September 2011 onwards.

As on 31 March 2014, the Company had 21 short term contracts (covering all 33 toll stations of seven projects) out of which 19 contracts were in operation with RSC. The RSC provided that after the contractor collects the amount offered under the contract, any excess revenue collected over and above the offered amount shall be remitted to the Company after deducting five *per cent* towards profit and five *per cent* towards toll collection and administrative charges. It was further stipulated that contractors shall submit details of daily toll collection and traffic data to the Company to display the same on the website of PWD/ Company so as to be available to the public. All these 19 short term toll contracts would be expiring between January 2015 and September 2017.

Audit observed that Company did not include any mechanism in the agreements for assessment of such excess revenue. The Company also did not

[29] Five Mumbai Entry Points-₹ 2,100 crore, Thane Godbunder-₹ 140.40 crore and MPEW including old NH-4-₹ 918 crore

take any efforts to link the real time data to the website of the Company. Further, there was no provision in the respective agreements for access to records of the contractors by the Company.

The Management stated (November 2014) that eight toll stations have already been closed and for revenue sharing in respect of remaining toll stations, data was being considered by collecting audited Balance Sheet, separate toll collection statements duly certified by the auditors and traffic plying data as per video footage.

Reply is not relevant as there was no provision in the agreement to furnish these documents to the Company as agreement specifically provided that contractors shall submit details of daily toll collection and traffic data to the Company for displaying the same on the website of PWD/ Company.

Thus, in absence of any mechanism to capture real time revenue as well as traffic data, the revenue sharing arrangement with the contractor failed. Resultantly, Company lost the opportunity to earn its due share of revenue.

Display of toll collection data

2.12.3 To create transparency in toll collection contracts and generating awareness among general public, GoM directed the Company (October 2011) to install real time data electronic display boards in all the toll stations in the State. The Company appointed (October 2012) M/s Rajdeep Info Techno Private Limited (Agency) for supply, installation and commissioning of Light Emitting Diode Boards at 29 toll stations at a cost of ₹ 2.81 crore and work was to be completed by December 2012. As per terms of contract 65 *per cent* of the total cost was payable to the agency after installation and commissioning and satisfactory testing of boards at toll stations, 15 *per cent* after installation and commissioning of boards, display of information on boards and simultaneous connectivity on Company and Information Technology and Computer Center (ITCC), Pune websites and 10 *per cent* after commissioning of the system. The payment of balance five *per cent* was to be released after defect liability period of one year and five *per cent* after expiry of guarantee period of five years.

The Agency installed 62 display boards at 30 toll stations during 2012-13 and toll information was displayed at the site. The Company released ₹ 2.70 crore being 90 *per cent* payment to the Agency. Audit observed that the objective of accessing the toll Plaza server for fetching the day end collection details as well as daily class-wise traffic summary and uploading the data and linking to Company/PWD website was yet to be achieved (November 2014) as there were connectivity problems in the software.

The Management stated (November 2014) that information was displayed at the site. It was further stated that no connectivity of data to ITCC Pune was established due to software problems and user ID and password was not provided by ITCC Pune. However, the management was silent as to why the connectivity was not established at its own website.

Delay in finalisation of toll contracts

2.12.4 The Company was to ensure finalisation of next toll collection contracts well before expiry of existing contracts. Considering six months for finalisation of tender, the Company should have invited tenders six months before the expiry of the existing contracts. On test check of 40 toll collection contracts, it was observed that tenders for 10[30] toll stations were not invited in time and delay ranged from two to 11 months. The delay in finalisation beyond six months were also noticed and overall delay in awarding contracts ranged from one to 20 months in respect of 12 contracts for toll collection awarded during the period 2009 to 2014. As a result, the Company had to extend 12[31] existing contracts at the same rate as there was no provision in contracts to revise rate based on traffic growth. It was observed that rates received against subsequent tender were higher than the rates of existing contracts. Considering the rates received against subsequent tenders, the loss of revenue worked out to ₹ 13.24 crore and amounted to undue benefits to the existing contractors which could have been avoided by inviting tenders in time by adopting good contract management practices.

The Management stated (November 2014) that delay was mainly on account of administrative procedures. It was further stated that they have decided to introduce higher rates for the extension of existing contract beyond three months. However, the Company should have put in place necessary mechanism so as to finalise tenders in time.

Excess recovery of toll

2.12.5 Public Works Department (PWD) transferred (December 1998) partly constructed six ROBs[32] to the Company. The PWD also directed (February 1999) the Company to complete these ROBs by borrowing funds from the market and committed to reimburse the cost along with interest in case toll collection during the concession period falls short to recoup the cost. The PWD had incurred total expenditure of ₹ 11.85 crore on partly completed projects and the Company incurred ₹ 6.39 crore during 1999 to 2003 to complete the ROBs. By the time these toll stations were closed for collection of toll (October 2010), the Company recovered total toll of ₹ 66.54 crore. Further, it was also observed that the toll notification had expired in February 2005, November 2005 and April 2010 in respect of three ROBs[33].The toll collection exclusively in absence of toll notification was ₹16.06 crore and overall excess toll collection over and above the cost of the project (six ROB) was ₹ 56.88[34] crore. Audit observed that the Company should not have

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[30] Deole, Dusarbeed, IRDP Baramati, Kini, Taswade, Malegaon Mehekar, Nagzari Kherda, Nakshatrawadi, ROB at Tadali and Sawangi

[31] Deole, Dusarbeed, IRDP Baramati, Kini Taswade, Kini Taswade, Malegaon Mehekar, Malegaon Mehekar, Nagzari Kherda, Nakshatrawadi, ROB at Tadali, ROB at Tadali and Sawangi

[32] Ambesawangi, Yelekeli, Kothoda, Badnera Yavatmal, Kendali and Paraspur

[33] Badnera Yavatmal, Yelekeli and Paraspur

[34] ₹ 66.54 crore less cost of ROBs ₹ 6.39 crore less ₹ 1.32 crore (administrative cost and centages) less ₹ 1.95 crore (interest)

recovered the toll without notification and not more than the cost as per section 20 of the Bombay Motor Vehicles Tax (BMVT) Act, 1958, which provided that toll shall be levied and collected not more than the capital outlay.

Audit further observed that the Company did not prepare project wise cash flow statement for each year to ascertain the balance cost remained to be recovered at the end of each year.

The Management stated (November 2014) that even if there was excess recovery of toll the same was utilised for other larger public interest infra development projects. Management further stated that cash flow would be prepared on annual basis. The reply was not acceptable as the Company collected toll in violation of provisions of Section 20 of BMVT Act, 1958.

Delay in decision for recovery of toll

2.12.6 The Company completed the construction of IRDPs Nanded and Pune during 2010-11 to 2012-13 at a cost of ₹ 82.82 crore and ₹ 613.43 crore respectively. Funds were arranged through borrowings from open market. The Company submitted (November 2004/ October 2008) proposals to PWD for issue of notifications for toll collection at nine toll stations in IRDP Pune, eight toll stations in Nanded. However, notifications for Pune and Nanded were not issued by PWD so far (November 2014) for want of No Objection Certificate from Pune MC and public demand for not to levy toll respectively. Thus, in the absence of decisions of GoM, the Company could not commence the toll so far (October 2014) and had to repay the loan through short term borrowings with adverse effect on the financial condition of the Company.

Non recovery of dues from toll contractors

2.12.7 Toll collection contracts provided for payment of monthly/yearly/ whole toll collection in advance. In case the contractor does not pay the amount by due date or within three days from due date, the same was to be recovered by adjusting/encashing the SD and contract was to be terminated /determined. Records of the Company revealed that due to default in payment by contractors arrears of ₹ 39.17 crore were recoverable from 34 contractors as on 31 March 2014 as detailed below:

Sl. No.	Period of arrears	Amount (₹ in crore)	Number of contractors
1.	Less than one year	23.19	7
2.	One to three years	11.65	6
3.	More than three years	4.33	21
	Total	**39.17**	**34**

Audit observed that there was no mechanism in place to monitor the arrears *vis-a-vis* SD of each contractor to take timely action. As a result ₹ 15.10 crore remained to be recovered from 27 contractors even after adjusting SDs. In respect of balance dues of ₹ 24.07 crore, the Company had adequate SD but the decision for encashment of the same was yet to be taken (November 2014).

The Management stated (November 2014) that the condition to recover maximum upfront amount was now included in tenders invited from December 2011 and the scheme for one time settlement was introduced for defaulting contractors. However, the fact remained that the toll contractors collected toll from the public but not remitted to the Company as per contractual terms.

Execution of commercial contracts

2.13.1 The Government of Maharashtra authorised (February 2002) the Company to utilise the space below and above the flyovers for commercial exploitation to generate revenue through pay and park facilities, advertisement rights, leasing of ducts and leasing of space for eateries/dhabas to recoup the project cost. As on 31 March 2014, the Company had total 92 advertisement sites (hoarding and kiosks) of which 61 sites were commercially exploited by awarding contracts through tendering process. The remaining 31 sites were not commercially exploited by the Company so far (December 2014) though these sites were available from October 2011 to August 2013. On test check of 49 out of total 97 contracts for 61 sites awarded during 2009-14, Audit noticed the following:

Delay in finalisation of advertising contracts

2.13.2 The Company awarded contracts to private agencies assigning rights to display advertisements on flyovers and toll plazas for periods ranging from three to five years.

Scrutiny of 20 contracts (₹ 15.87 crore) awarded during September 2012 to January 2014 for advertisement sites at 17[35] flyovers, two toll plazas (Dahisar and Mulund) and one bus shelter (Solapur) revealed that contracts for 13 flyovers and two toll plazas were not replaced by new contracts in time due to delay in invitation of tenders and finalisation of offers. As a result, the Company had to extend the existing contracts for a period from eight to 30 months resulting in loss of revenue of ₹ 2.59 crore being difference between new rates received and rates paid by existing contractors.

The Management stated (November 2014) that there were procedural delays on account of time taken for calculation of base price and introduction of new clauses in the offer document. Thus, there is need for streamlining the procedures so as to minimise such delays.

Non recovery of rent for ducts

2.13.3 The Company installed (2002) 25 ducts across BARC-Kalamboli-Dehu Road. Audit scrutiny revealed that the Company executed agreement with Bharati Airtel, Mumbai belatedly in December 2008 for 121 Km at

[35] Aarey, AGLR, Cheddanagar, Chembur Mankhurd Link Road, Dindoshi, GMLR, JVLR (Kanjur Marg), JVLR (Jogeshwari), Kalanagar, Konkan Bhavan, Love Grove, Nerul, Vashi, Teen Hath Naka Thane, Nitin Casting & Cadbury Junction, Everard Nagar and L&T Flyover

₹ 2.50 per duct *per metre/per month* for a period of seven years with retrospective effect from May 2002 being the date of handing over of ducts. Bharati Airtel continued to use ducts on same terms and conditions even after expiry of contract in April 2009. In September 2011 the Board formulated a policy to revise the rent of ducts to ₹ 4.63 per duct *per metre/per month* with an increase of five *per cent* per annum up to a period of six years. The Company neither renewed the agreement with Bharati Airtel from May 2009 nor recovered the revised rates from September 2011 onwards thereby forgoing revenue of ₹ 1.03 crore till date (August 2014).

The Management accepted the audit observation and stated (November 2014) that the recovery of outstanding rent was in progress.

Other topics of interest

Commercial exploitation of land

2.14.1 GoM decided (December 2007) to hand over 402.18 Hectares (Ha) of land adjacent to MPEW to the Company on lease for 99 years for commercial exploitation at lease rent of ₹ 1 per square metre per annum. The Company was appointed as an agent of GoM for development of land. PWD, GoM executed (July 2012) agreement with the Company for specific land (11.20 Ha) at Sanjangaon, Taluka Khalapur, District Raigad. As per agreement the change of use was to be got approved from Revenue Department (RD). The Company submitted (March 2014) proposal to PWD to get the change of use approved from RD. Audit observed that the Company invited (August 2010) tender for leasing of land (19.69 Ha) at Sanjangaon without ensuring the change of use from RD. The Company accepted (March 2011 to March 2012) $1/3^{rd}$ upfront payment of ₹ 1.91 crore from five parties for six plots admeasuring 9.57 Ha. The lease agreements with respective parties could not be executed due to pending approval for change of use. As a result the Company could not recover the balance $2/3^{rd}$ upfront payment of ₹ 3.82 crore and annual payment of commitment fee of ₹ 24.92 crore. Further, the Company had not taken steps to take possession of the remaining land of 391.48 Ha. The value of the land worked out to ₹ 924.83 crore considering Ready Reckoner rate of GoM for 2014. Thus, the Company is yet to commercially utilise 402.18 Ha of land (December 2014).

Recovery of toll without notification

2.14.2 The Company entered into an agreement (December 1997) with Western Coalfields Limited (WCL) for construction of bridge across the river Wardha near Nakoda to facilitate movement of coal from Mungoli open cast mine of WCL to the areas of Chandrapur district. As per agreement, WCL was to provide loan equivalent to 50 *per cent* of the project cost with interest at the rate nine *per cent*. The cost of the project was to be recovered by collection of toll from the trucks passing through the bridge. The bridge was constructed at a cost of ₹ 7.68 crore excluding interest during construction with a refundable loan assistance of ₹ 1.13 crore from WCL. The Company collected toll to the extent of ₹ 7.14 crore during 2003-04 to 2010-11. Audit observed that the Company had not obtained the approval of the GoM for execution of project and notification for recovery of toll. In the instant case toll collection was discontinued from 28 June 2011 for want of notification and the Company could not recover remaining project cost of ₹ 13.07 crore (including interest and taxes).

The Management stated (November 2014) that request for issue of toll notification was submitted to GoM in February 2003. The fact remained that the Company had not obtained the approval of GoM for construction of bridge as well as toll recovery hence the chances for recovery of the balance cost of the project were remote.

Monitoring and Internal Audit

2.15.1 Audit observed the following deficiencies:

- The Company had decided to constitute (January 2004) Flying Inspection Squad (FIS) for verification of toll collection and working of toll stations. FIS was to comprise of Executive Engineer (EE), one Deputy Engineer of the Company and one EE from local PWD division. The FIS was to visit all the toll stations one or more time as per requirement in every quarter. The FIS was to propose the amount of fine to be imposed or action to be taken against toll agents for violation of terms of contract. The COPU also recommended (November 2007) to appoint vigilance Squad to monitor toll collection. However, the Company had not formed such FIS so far (November 2014).

The Management stated (November 2014) that in view of automated system of vehicle counting available in each toll plaza FIS was not formed. The reply was not acceptable as the Company was to monitor working of the system installed in toll plazas.

- All toll collection contracts in force as on 31st March 2014 were awarded with Revenue Sharing Clause (RSC). However, the Company did not ensure availability of real time data for assessing amount collected and consequently the RSC could not be enforced.

- The arrears of toll collection were not monitored to ensure that arrears from contractors did not exceed the amount of SD.

- The Monitoring mechanism of the Company was deficient in respect of motorable condition of roads, renewal of notifications, finalisation of tenders well before the expiry of existing contracts.

The Management stated (November 2014) that necessary action would be initiated.

2.15.2 The Company had not prepared Internal Audit Manual prescribing functions of Internal Audit (IA) and reporting mechanism. The Company had also not created an independent audit wing. The IA work was outsourced to a firm of Chartered Accountants from 2009. Their reports were submitted to VC&MD of the Company. The activities of project offices other than Mumbai were however not audited by IAs. Thus, the role of IA per se was not adequate.

The Company stated (November 2014) that they are in the process of implementing effective auditing practices.

2.16 Conclusion and Recommendations

The GoM assigned 26 projects to the Company, however, Concession Agreements were not signed with the Company prescribing terms and conditions for the assigned projects.

The GoM may execute Concession Agreements with the Company specifying terms and conditions for each project.

The Company was incurring losses due to non commencement of toll collection and closure of toll stations coupled with the GoM not compensating the Company towards the cost of project met through borrowing.

In the event of either non commencement of toll or closure of toll stations, GoM may evolve framework to recoup the cost of projects to the Company.

The Company had no mechanism in place for periodical inspection of road conditions for preparation of annual/special repairs plan to ensure that roads/bridges are maintained as per standards.

The Company may evolve system for periodical inspection of roads/other assets and prepare rolling plan for repairs.

The Revenue Sharing Clause was included in short term toll collection contracts without ensuring arrangement for real time data to measure the actual toll collection which was crucial for Revenue Sharing.

The Company may ensure online arrangement for linking real time data to the Company/PWD website in case of award of toll collection contracts with Revenue Sharing Clause.

There were delays in finalisation of toll collection contracts/commercial contracts resulting in undue benefits to existing contractors. Contractors did not pay upfront payment of toll as per terms of contract and arrears were more than the Security Deposit (SD) available with the Company. There were instances of recovery of toll more than the project cost which was in contravention of BMVT Act.

The Company may streamline their contract management practices so as to avoid delay in awarding of contracts. The Company may monitor arrears from contractors with reference to security deposit with the Company and take suitable action to safeguard the financial interest of the Company.

Audit findings were reported (September 2014) to GoM; the reply was awaited (December 2014).

Chapter III

Information Technology Audit of Statutory Corporation

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Information Technology Audit of Statutory Corporation

Computerisation of e-ticketing system in Maharashtra State Road Transport Corporation

Highlights

Maharashtra State Road Transport Corporation (Corporation) incorporated in July 1961 under Section 3 of the State Road Transport Corporations Act, 1950, is mandated to provide an efficient, adequate, economical and properly coordinated road transport system within the State of Maharashtra. The Information Technology (IT) Audit of Computerisation of e-ticketing system revealed the following:

(Paragraphs 3.1)

There was deficient systems design resulting in non-capturing of data for grant of concessions. The deficient input control and validation checks resulted in low assurance regarding completeness and reliability of data as observed from the tables containing details of freedom fighters, Arjuna awardees etc.

(Paragraphs 3.9.1, 3.9.2, 3.10.4 and 3.10.5)

The system could not be used for an effective Management Information System, data integration and data mining as envisaged in the scope of the contract due to non-capturing of details of buses available with depots, manual pass collection data, digitised routes and bus stops, digitisation of data of pass holders *etc.*

(Paragraphs 3.8.8 and 3.11)

Inadequate accounting arrangements and control mechanism for monetary transactions resulted in retention of amount by Authorised Booking Agents in excess of permissible limits.

(Paragraphs 3.8.7)

Introduction

3.1 Maharashtra State Road Transport Corporation (Corporation), incorporated in July 1961 under Section 3 of the State Road Transport Corporations Act, 1950, is mandated to provide an efficient, adequate, economical and properly coordinated road transport system within the State of Maharashtra.

The Corporation had six Regional Offices (ROs), 30 Divisional Offices (DOs) and 250 Depots in the State as on 31 March 2014. The Information Technology (IT) needs of the Corporation are overseen by the Electronic Data Processing (EDP) Centre at Head Office (HO), Mumbai. EDP is headed by a Deputy General Manager who is assisted by Senior Programmers, Junior Programmers and Data Processing Officers.

IT ticketing system

3.2 In order to facilitate online/web-based reservation system and to adopt software technology in its day to day operations, the Corporation invited (June 2008) Request for Proposal (RFP) from interested parties for the project of providing, computerising, implementing and maintaining - i) Electronic Ticket Issuing Machine (ETIM) and ii) Online Reservation System (ORS) with web facility on Build, Operate and Transfer (BOT) basis.

The Corporation awarded (December 2008) the project to Trimax IT Infrastructure and Services Limited, Mumbai (Trimax) on BOT basis for six years from the date of award. The scope of the project included provisioning of required hardware and software for:

- ETIM machines across 247 depots together with required supporting staff during the first year of operation to enable its staff members to familiarise with the system;
- computerised ORS with web facility at its 327[36] locations and its authorised booking agents along with facilities to the traveling public such as payment gateway and bus trip information;
- adequately secured Local/Wide Area Network connectivity for ETIM and ORS with an assurance on high uptime;
- Data Centre and Disaster Recovery Centre to ensure business continuity; and
- Necessary training to all levels of Corporation's officials.

Further, Trimax was to provide services in data digitisation, data migration and data mining for advanced business intelligence applications related information system and bus trip management. Besides, Trimax was to provide 10 lakh 'yearly re-chargeable' smart cards at the start of the project with an addition of 10 *per cent* new cards every year and a minimum guaranteed quantity of 5 lakh 'One time/use and throw' smart cards every year.

The project was to be implemented in two phases *viz.*, the pilot phase in ten depot locations was to be completed by 18 June 2009 and rollout phase with commercial deployment in all other locations to be completed till 8 April 2010 in three rollouts. The agreement with Trimax was executed on 22 July 2010.

As per terms of agreement, Trimax was to be paid at a unit rate of ₹ 0.21 per ticket issued through ETIM and ORS, on which passengers actually traveled

[36] Includes 247 depots and 80 bus stations

and also on the cancelled tickets if booked through ORS, subject to an annual minimum of 75 crore tickets. On expiry of contractual period, all the assets including Hardware and System Software (excluding proprietary software) was to be transferred to the Corporation at no extra cost with a guarantee for functioning of equipments for a further period of two years. The platform adopted by the Corporation was custom developed using open source technology Linux-Apache-MySQL and PHP (LAMP).

The Management had not, however, framed any IT policy laying down procedures, rules and regulations till date (December 2014) to oversee and monitor its IT environment.

Audit objectives

3.3 The audit objectives were to ensure as to whether:

- The requirements of users and other stake holders were assessed and adequately addressed;
- The contract terms were duly adhered to and payments to the contractor were made as per the terms of Contract;
- The general controls were adequate and system was operating in an adequately controlled environment;
- The application controls were adequate and the system was in compliance with laid down business rules and adequately secured from possibilities of fraud; and
- The accounting arrangements and control mechanism for monetary transactions were adequate.

Audit criteria

3.4 In pursuing audit objectives, audit adopted the following criteria;

- State Road Transport Corporations Act and Rules made thereunder;
- e-Governance Policy of the Government of Maharashtra (GoM);
- Terms and conditions of contract with Trimax; and
- Policy decisions, business rules *etc.* related to ticketing and other operating parameters.

Scope of Audit

3.5 The scope of IT Audit included scrutiny of contract with Trimax, evaluation of ETIM and ORS with specific reference to the security and control measures; evaluation of operating parameters of routes and crew with specific reference to the revenue earnings. The scope also included evaluation of performance of authorised booking agents and payment gateway agencies with specific reference to timely collection of revenues earned through ORS. The period covered by Audit was from the date of implementation of the e-ticketing system (May 2009) upto October 2014.

Audit methodology and sample selection

3.6 The objectives and scope of audit were explained to the Management in the Entry Conference held on 18 September 2014 seeking their co-operation in understanding the table structures and content of the soft data furnished. For, its inference, audit relied on the detailed analysis of data pertaining to 146 locations of 12[37] DOs being the sample selected out of 320 locations from 30 DOs where ETIM and ORS were implemented (February 2014). The data analysis was carried out through IDEA software package.

The sample selection was made by utilising Sampling Techniques. Two Divisions each from the six[38] Regions was selected by stratifying the data in terms of highest traffic revenue generated and highest quantum of online reservation done in the Region.

The audit findings were discussed in an Exit Conference held on 24 December 2014 which was attended by Vice Chairman and Managing Director of the Corporation. The views expressed by the Corporation in the meeting/replies (December 2014) have been considered while finalising the IT Audit Report.

Audit findings

The audit findings are discussed in the following paragraphs broadly classified into two major headings *viz.*, 'Contract Management' and 'IT Ticketing Database Management'.

Contract Management

3.7 In the implementation of the ETIM and ORS projects, Trimax had not adhered to certain terms and conditions of Work Order and Master Service Agreement (MSA) inclusive of Service Level Agreement (SLA) as discussed below:

Advertising rights foregone

3.7.1 As per terms of MSA, Trimax was to supply ticket rolls free of cost and the Corporation reserved its right of advertisements on the backside of the ticket rolls to supplement its revenue. Trimax had also offered (August 2011) ₹ 0.01 per ticket for the advertisement rights but the offer was not considered (November 2011) on the ground that it would be dealt separately. However, no such efforts were made till date (December 2014). Considering total 417.15 crore tickets actually issued between September 2011 and October 2014, the potential revenue thus foregone by the Corporation worked out to ₹ 4.17 crore.

[37] Aurangabad, Beed, Bhandara, Buldhana, Dhule, Kolhapur, Mumbai, Nagpur, Nasik, Pune, Ratnagiri, and Yavatmal

[38] Amravati, Aurangabad, Mumbai, Nagpur, Nasik and Pune

The Management accepted (December 2014) the views of audit and agreed to finalise the issue at the earliest.

Non recovery of infrastructure cost

3.7.2 As per terms of MSA and Clause 9.28.1 of RFP, Trimax was to be provided sufficient space at each depot/bus stand by the Corporation for preparing infrastructure work as per their needs. Trimax was to make provision for furniture, electrical fixtures and civil work including cooling systems for entire project. It was noticed that the Corporation provided the infrastructure to Trimax at EDP centre and depot/bus stand. The infrastructure provided includes furniture, electrical fixtures and civil work including cooling systems at a cost of ₹ 2.45 crore, which was not recovered from them till date (December 2014).

The Management stated (December 2014) that amount of ₹ 2.45 crore was withheld from Trimax and the decision would be taken for its adjustment after due diligence.

Violation of e-Governance policy

3.7.3 The e-Governance policy issued (September 2011) by the GoM provided for maintaining online record of Hardware & Software Inventory (H&SI). However, neither online H&SI nor a physical H&SI was maintained by the Corporation thereby, violating the directions given in the e-Governance policy of the GoM.

The e-Governance policy also provided for constitution of a Departmental Project Implementation Committee (PIC) for overseeing departmental e-Governance projects with representatives from the Planning, Finance, Industries and IT department, apart from members from the parent department. Further, Schedule IV-Governance Schedule of the MSA directed the appointment of Project Manager and a Core Team, which was not adhered to by the Corporation till date (December 2014).

The Management stated (December 2014) that due care would be taken to follow the norms of e-Governance policy issued by the GoM.

IT ticketing database management

3.8.1 The IT ticketing system in the Corporation comprises mainly of two databases *i.e.*, ETIM with 296 tables including Radio Frequency Identification Device (RFID) tables and ORS with 781 tables. In the absence of data dictionary, for understanding the tables with reference to their objective, design, contents, relation to other tables, embedded controls *etc.*, audit relied on the information furnished by the Corporation.

System design

3.8.2 The Corporation has also been operating its buses outside the State under Reciprocal Transport Agreements[39] executed with the respective State Road Transport Corporations (SRTCs) to cater to the needs of passengers. Keeping in view its network, the Corporation has created master tables *viz.*, State, Region, District, Division and Depot with required fields. Even though the Corporation had executed inter-state agreements with eight[40] neighbouring SRTCs, data fields for only five states were created in the table containing ticket details in ORS database.

In the master table "District", names of the States with codes meant for Districts, have been incorporated. Similarly, in the table "Depot", details of 253 depots[41] as against its existing 250 depots were captured. In so long as the correct data was not captured in the correct table and correct field, besides the error generation, the prospect of migration to new system in future, without incurring additional cost, was inherent.

The Management, while accepting (December 2014) audit contention, agreed to review and address the issues adequately in the new contract being finalised.

3.8.3 On scrutiny of the tables, it was observed that almost one-third of the tables under the ETIM database and more than half of the tables under ORS database were blank and devoid of data. It was also noticed that fields to capture Divisionname, Divisioncode, Deponame and Depocode though created were blank and devoid of data in most of the Master tables. The purpose of their creation was, thus, not achieved.

The Management stated (December 2014) that in ETIM database only required tables were synchronised from central database therefore there may be few tables in depot ETIM database which doesn't have any records. It was further stated that data fields such as division name, division code, depot name, depot code *etc.* were added keeping in mind the future requirement and currently these fields were not in use. Therefore presently these table/fields remained blank.

The reply was not correct as all mandatory fields were overridden and kept blank. In the event of migration or upgradation or centralisation at a future date, the database cannot be integrated without remedial measures at additional cost.

3.8.4 Table created and designed to capture waybill details and lock the date of waybill was found to be blank and locking date of way bill was being captured as a Character data field instead of a date field in a separate table recording waybill time details. Thus, the data captured in the waybill during the operation of bus schedules was susceptible to the risk of modification.

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[39] In the absence of any agreement between RTCs of two States for interstate operations, the respective State Governments execute such agreements and impose the terms and conditions on such RTCs. Revenue sharing is the major element addressed in such agreements

[40] Andhra Pradesh, Goa, Gujarat, Karnataka, Madhya Pradesh, Rajasthan, Chattisgarh and Dadra and Nagar Haveli

[41] Payment Gateway, Sambhaji Nagar Rank and Borivali Nancy Colony, though not, are included as Depots

The Management stated (December 2014) that the process of waybill issuance and allocation functionality was designed in such a way that ETIM can be operated only within the schedule operation hours or within the pre-defined locking date and there was no possibility of modification as apprehended by audit.

The contention of the Management was not acceptable as in the absence of capturing relevant data in the table, any happening of such incidences could not be ruled out.

3.8.5 As per the policy of GoM, the Corporation has been allowing concession in fares, with or without a limiting factor[42] to different category of passengers like physically handicapped, senior citizens, press reporters, various sport and other awardees, MP/MLAs *etc*. The amount of concession so allowed was periodically claimed from the State Government. In the ORS database there was provision to capture data on documentary proof of the passengers eligible for concession. In case of ETIM database at least one field to capture the identity proof should have been incorporated in the TICKET table.

The Management stated (December 2014) that capturing proof of record at the time of ticket issuance may lead to the delay, thereby leaving scope for de-boarding the passenger without tickets. It was also stated that the Corporation had not evolved database of relevant ID proof for verification at the time of issue of tickets.

The reply was not convincing as there should have been separate field for indicating type of proof used for concessional tickets.

3.8.6 To facilitate mobile based advance booking, table was created in ORS database to capture personal details of passengers availing the facility for the first time. Audit observed that out of 247 distinct users captured in the table during audit period on the basis of their email IDs, the mobile or landline contact numbers in respect of 204 users were not captured as the relevant field was not defined mandatory.

Similarly in the transaction table under ORS, the passenger name field designed to capture the name of passengers booking in advance was blank in 54,65,107 out of 2,69,50,237 records of tickets booked through Authorised Booking Agents (ABA).

The Management accepted (December 2014) the audit views and agreed to take due care in this regard.

3.8.7 In the ORS database, the advance bookings are being allowed through three sources *viz.*, window booking, ABA and web-booking. While in window booking, the amount collected through sale of tickets are remitted and accounted for on the same day, in the other two types of bookings the sale value is being received by the Corporation after lapse of period involved in the

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[42] Limiting factors are put on the number of times a concession holder can travel and/or the total kilometres of travel permitted and/or on the total amount of concession allowed

process of remittance by the agents/payment gateway banks. Hence, it was imperative that a set of transaction tables be designed within the ORS database to depict details of the total value of tickets sold but remittances yet to be received from those two sources so as to monitor and reconcile the actual receipt of ticket values with ticket sales preferably before the commencement of journey. We, however, observed that the ORS database was not designed to capture the details of cash receipt transactions. In one instance, ABA at Parel Depot exploited the deficient system and retained an amount of ₹ 58 lakh, out of which ₹ 38.94 lakh was pending for recovery (December 2014) subject to settlement of litigation raised by him.

The Management while accepting the observation stated (December 2014) that they were in the process of implementing pre-paid payment system *i.e.* online wallet for booking agent by using payment gateway and this functionality would be enabled soon.

3.8.8 As per terms of MSA, Trimax should integrate both ETIM and ORS databases within 17 weeks *i.e.*, up to 16 April 2009 from the date of issue of work order. By virtue of data integration, the Corporation could have reaped the benefits of standardisation and the Conductors operating ETIM would have got the system data on the seats booked through advance reservation for his scheduled trip as against the procedure adopted of relying on manual intervention by way of printed copy of details of ORS booked tickets (WBR-Window Booking Returns). It showed that the desired data integration was not achieved.

The Management stated (December 2014) that System Integration of ETIM with ORS and payment gateway was done. WBR printing facility has been provided in ORS system for checking the details about advance reserved seats and it is up to the user to take printouts or to check the details on ETIM.

However, Audit observed that no deliverables were presented by Trimax to notify the occurrence of system integration as contended. Further, the User Manuals stipulated for taking a print of WBR and option to check ORS details in ETIM was not given.

3.8.9 Audit observed that the sale of passes and the revenue earned there from either manually or through smart cards, were not being captured in the database by designing relevant tables to enable the Corporation to estimate the future cash flow as also to ensure the validity of passes at the time of travel through the system without human intervention.

The Management stated (December 2014) that the revenue through sale of passes through EPIM was by using smart card and could be seen on the common revenue portal of the Corporation and revenue from sale of passes manually was accounted as per prescribed procedure. The smart cards issued to passengers were checked by using ETIM machine whereas Manual passes issued to passengers were physically checked by conductor on board.

The fact remained that any IT system should be ideally designed to avoid human intervention and the Corporation may design master table to capture the passes issued manually to passengers.

Mapping of business rules

3.9.1 Scrutiny of the table capturing ticket details in ORS database revealed that 27,405 concession tickets under the "Freedom Fighter (FF) Quota" were issued by ABA during audit period without capturing identity proof and concession proof.

The Management stated (December 2014) that in the absence of specific criterion for age validation, the seats were reserved against FF quota and the conductor checks the identity proof of FF.

The reply was not convincing as the system shows that benefit was also given to FF below 18 years in 146 cases which was not possible and should not have been granted.

3.9.2 Recognition of outstanding achievement in National sports, specific awards like Arjuna, Dronacharya *etc.*, is given by the Ministry of Youth Affairs and Sports, Government of India (GoI) from time to time. As per GoM order dated 27 February 1998, such specific awardees were allowed to travel by public road transport along with one escort free of cost and the fare would be reimbursed by the GoM on the basis of claims from the transport operators. Scrutiny of the table capturing ticket details under ORS database revealed that 155 tickets were issued to 75 Arjuna Awardees during audit period, of which none of the names of awardees captured in the system tallied with the names appeared on the website of the GoI. Unlike the FFs, such awardees were limited in numbers and it would be possible to create their master data for verification without manual intervention before granting the concession whereby threat of fraud could have been minimised.

The Management accepted (December 2014) the contention of audit and agreed to collect relevant data from the concerned sport authorities.

Application controls

3.10.1 Application controls are those checks and balances that are incorporated in the developed application for maintaining data integrity. These include input control, processing control and output control. Lack of any of these controls would impact the integrity and reliability of the database. Some of such lapses of control indicators observed during audit analysis are discussed in the succeeding Paragraphs:

3.10.2 Scrutiny of the table Conductor Master revealed that 14[43] out of 146 locations test checked showed duplicate records for 22 conductors due to failure of constraint (Not_Null) defined for the data fields.

Similarly in ETIM database, a few tables containing fields though defined with Not_Null constraints were blank or devoid of data.

[43] Depots at Gangapur, Paithan, Soygaon, Mumbai Central, Nasik 2, Satana, Sinnar, Baramati, Bhor, Chinchwad, Indapur, Narayangaon, Shirur and Shivajinagar

The Management stated (December 2014) that despite 'Not_Null' constraint, if blank is forcefully inserted, there is possibility of devoid of data and that care would be taken in future system implementation.

3.10.3 As per terms of MSA, Trimax was to update the system considering changes in the situation. Accordingly Trimax updated the ETIM system from time to time. However, Audit observed that 9,761 out of 12,072 ETIMs in operation were still functioning in Mofussil areas with the older version.

The Management stated (December 2014) that efforts were being made to monitor usage of updated version of ETIM.

3.10.4 Test check of columns containing ticket identification of the table ticket at all locations revealed 1,58,80,897 missing TICKET_IDs. Missing TICKET_ID raises doubt on the integrity and completeness of the data.

The Management stated (December 2014) that the said gaps in the ticket ID may exist due to standard rollback feature at Relational Data Base Management System (RDBMS) level operated to maintain the accuracy and integrity of transaction data.

The reply was not correct as the rollback operation in an IT system was intended to rectify a failed transaction and restore the database to a previous state even after erroneous operations were performed.

3.10.5 In all 118.96 crore ETIM concession tickets were generated in aggregate up to 31 March 2014 as detailed below:

Sl. No.	CN_ID	Particulars of concession facility	2009-10	2010-11	2011-12	2012-13	2013-14	Total tickets
1	0	Null	1,829	28	25,98,17,330	27,62,93,018	3	**53,61,12,208**
2	11	Senior Citizen	94,43,423	16,07,35,384	4,43,57,248	4,45,20,226	27,15,14,561	**53,05,70,842**
3	19	Handicapped/ Mentally Retarded Person	12,33,202	2,32,60,516	59,54,661	66,04,372	3,90,53,086	**7,61,05,837**
4	2	Annual Concession Card	4,58,580	83,36,578	21,65,350	31,45,474	1,99,78,049	**3,40,84,031**
5	9	Blind	1,70,023	19,52,506	5,20,037	6,49,600	37,75,917	**70,68,083**
6	45	Handicapped/ Mentally Retarded Person C	15,378	6,52,698	1,43,765	2,02,337	11,89,254	**22,03,432**
7	20	Handicapped/ Mentally Retarded Escort	13,414	4,03,844	1,19,334	1,20,940	7,23,339	**13,80,871**
8	*	100 *per cent* Concession*	1,827	21,783	11,306	10,032	71,338	**1,16,286**
9	**	Partial Concession**	36,611	7,08,177	1,40,442	1,24,431	9,35,804	**19,45,465**
10	***	No Concession***	54	469	32	54	8,423	**9,032**
		Total	**1,13,74,341**	**19,60,71,983**	**31,32,29,505**	**33,16,70,484**	**33,72,49,774**	**1,18,95,96,087**

* Includes Freedom Fighters, Arjuna Awardees, *etc.*
** Includes T.B. Patients, Cancer Patients, Blind, Handicapped persons, *etc.*
*** Includes Staff on Duty, Employee Free Pass, *etc.*

It was further observed that 53.61 crore tickets were categorised as concession tickets without capturing the type of concession availed by the passengers.

These concession details were the foundation on the basis of which reimbursement were claimed by the Corporation from GoM.

In the absence of reliable and correct data for concessions to passengers, the reliability and correctness of the claims raised by the Corporation on the GoM for reimbursement of differential fare could not be vouchsafed. On verification of data related to the claims made during 2013-14 against the concession of senior citizens pertaining to selected 12 Divisions, Audit observed that in 11 Divisions (except Buldhana), the Corporation claimed reimbursement of ₹ 180.55 crore based on manual data as against the fare amount of ₹ 166.37 crore collected from senior citizens as per data generated by the system. This needs reconciliation between system data and manual data.

The Management stated (December 2014) that proof of concession was not captured in the ETIM and it was physically verified by conductor before issue of ticket. It was further stated that concession wise ticket codes were captured at depot level server and was not pulled centrally till December 2011 and that for preferring the claims, monthly reports were being obtained from the depots and manually consolidated at central level.

The fact remained that the Corporation had not made use of system generated reports and data was also not reconciled.

3.10.6 The table for capturing waybill trip details was designed to generate analytical report on trip-wise revenue earned for decision making process.

- Scrutiny revealed that in 21,235 records, ticket income of ₹ 4.44 lakh was reported to have been generated against route number "0", which was not available in the master table containing routes.

- In Akola Depot in 9,661 records, cumulative revenue income of ₹ 1,00,03,845 was reported against analogous Trip number "00000000".

- It is pertinent to note that in Akola Depot in the case of conductor badge no 43,365 against waybill number 3,994 duty was assigned on 15 January 2011 for the trips assigned for two days on 15 and 16 January 2011 and the Trip numbers assigned were also not in sequential order *i.e.*, Trip number 0S254131 and 0S254137 to 0S254138 were assigned for 15 January 2011 whereas Trip numbers 0S254132 to 0S254136 were assigned for 16 January 2011, which indicates manual intervention.

The Management stated (December 2014) that this was related to Depot Crew operation and there were various routes, bus services created in the reservation system, which were later on synchronised with depot ETIM application. Further in regard to the case of "0" route number, it was stated that route data string may not be loaded properly and in respect of Trip number "00000", it was stated that these trips referred to extra trip.

The reply was not acceptable as the fact remained that in an IT system human intervention should be minimal.

3.10.7 Gaps of 134 crew ID numbers in the table recording crew duty in 41 locations were observed which raises doubt on the completeness, integrity and reliability of data

The Management stated (December 2014) that crew id may have gaps due to standard usage of roll back feature at RDBMS level to maintain the accuracy and integrity of transaction data.

The reply was not correct as the rollback operation in an IT system was intended to rectify a failed transaction and restore the database to a previous state even after erroneous operations were performed.

3.10.8 Audit trail in a system is essential to verify the veracity of the output with reference to keyed input to ensure that its process control is proper and for security of database was maintained. In ORS database, a table though created, was being maintained only from 12 March 2014.

The Management stated (December 2014) that Audit trail data for all the functionalities are captured and available with it. The reply was not convincing as verification of database revealed that the audit trail was available only for 15 tables as against 781 tables in ORS database.

3.10.9 Besides its own staff for window booking, ABAs were allowed to book advance tickets for the prospective passengers by collecting fare from them. As per contractual terms, credit limit approval[44] was specified and the money so collected was to be deposited in the designated bank account within specific period. To enable them to perform their contractual obligations, limited access to the ORS database was allowed and for capturing the details of agents, irrespective of whether own employees or private booking agents, master table for booking agents was maintained in ORS database. Scrutiny of the same revealed the following deficiencies:

- In none of the ABAs, the data on money value limit specified in the contractual terms was captured in the limit column contained in the master table and hence the method of monitoring money value limit was not known;

- In 12 cases, even though agent codes were allocated, the addresses of ABAs were not captured in the relevant columns lacking input controls;

- In another 109 cases though Agent codes were available, details of Booking Centre (BC) Code and BC Names were not captured to limit their access over database;

- In the case of its own employees as Booking Agents, 119 cases where same Agent code with access to more than one BCs falling in various locations were detected;

[44] Aggregate limit of value of tickets beyond which Corporation's money could not be retained by ABAs

- In other 29 cases, different BC Codes were created for the same Agent at the same location thereby facilitating the ABAs to avail more credit limits.

The Management (December 2014) accepted the observations and stated that they were in the process of implementing pre-paid payment system *i.e.* online wallet for booking agent by using payment gateway and this functionality will be enabled soon.

3.10.10 On an analysis of table recording receipts generated, Audit observed that in 12[45] locations, 76,471 duplicate receipt numbers were generated. This demonstrates the lack of process control in ensuring issue of unique receipt for every collection transaction recorded in the table.

The Management stated (December 2014) that the process of generation of Conductors Waybill Abstract (CWA) unique number is that, if no ticket block has been sold from the tray then same CWA number will be continued. In case if any sale from the tray, then new CWA number will be generated. By using this process log of each duty ticket sale will be maintained. Cash collection is recorded against each waybill number. Thus, there was no duplication or inconsistency in generation of duplicate CWA numbers.

The reply of the Management did not address the issue of non-generation of unique receipt number for each transaction distinctly but addressed the CWA which was not the point of issue.

3.10.11 The Government of Maharashtra decided (February 2009) to extend concessional ticket facility to Handicapped Exemplary Worker Awardee (HEWA) along with escort. However, this concession was not codified and included in the "Concessions" Master table and the same was being computed manually by the Corporation.

The Management accepted (December 2014) the observation and assured that care would be taken in future system implementation.

Management information system

3.11 Master Service Agreement envisaged the implementation of an effective Management Information System (MIS) for Data Analysis, Data Mining of various bus operations, revenue collected, passenger load, operating profitability (ABC trips Analysis) *etc.* Audit, however, observed that ETIM and ORS database did not contain tables to depict the details of buses available with depots, manual pass collection data, digitised routes and bus stops, digitisation of data of pass holders, ABA cash collection and remittance data, data pertaining to all passengers eligible to different types of concessions *etc.*, as reported in different parts of the report.

[45] Depots at Kurla, Mumbai Central, Panvel, Parel, Kolhapur, Sambhajinagar, Baramati, Chinchwad, Narayangaon, Shivajinagar, Swargate and Talegaon.

The Management stated (December 2014) that in all around 200 MIS reports are being generated from the system and made use of at depot level in its day to day traffic operation, which facilitated to have overall control on traffic operation, mechanical operation, KPTL, CPKM, EPKM, *etc*. During the exit conference, Management also agreed for improvement in analysis of data for suitable decision making.

Deficient services to passengers

3.12 To make the e-ticketing more successful and increase the efficiency and profitability of operations, a table was created in ETIM and ORS database to define all the routes and all service stops on the routes. In respect of Aurangabad-1 depot, Audit observed that out of 6,470 routes captured in the aforesaid table, service stops were defined only for 837 routes leaving 5,633 routes.

The Management stated (December 2014) that v_routes' is prepared for only Routes information present in routes table and 'v_all_service_stops' has only those route stops on which the bus service is defined for the own depot only.

The fact remained that as long as all the service stops of all routes were not defined and captured in the relevant tables, the services of Trimax was deficient and the Corporation could not derive expected benefits of e-ticketing by allowing prospective passengers to avail advance tickets as per their requirement.

System performance audit

3.13 Clause 1.24 of MSA, stipulated that the operator should allow the Corporation to access the network monitoring system located centrally or locally for the purpose of verifying performance by way of quarterly audit that would verify all service levels during the contractual period through the necessary software/tools provided by the operator. It further stipulated that the Corporation may, at its discretion, appoint a third party for carrying out Performance Audit and the third party so appointed would be responsible for verification, validation of all invoices under the terms and conditions of the agreement and would recommend on the eligible payment within two days.

It was observed that Corporation did not carry out such audits during the initial five years of the contract. Since the cost of such audits and inspections was to be borne by the operator, the lapse of the Corporation in not carrying out the audit had resulted in an extension of undue benefit to Trimax.

The Management, while explaining the constraints faced in carrying out the system performance audit as envisaged in the contract, stated (December 2014) that the Corporation had retained ₹ 3.50 crore from the payment of Trimax for this lapse.

Disaster recovery and management

3.14 Adequate Disaster Recovery (DR) infrastructure has to be maintained for ensuring recovery and business continuity in case of any disastrous scenario. It was observed that even though DR centre at Pune was established, mock drills were not carried out periodically to ensure sound health of equipments and cables deployed for the purpose as a preventive measure.

The Management has agreed (December 2014) to take due care in future to conduct mock drills periodically.

Business continuity plan

3.15 As per contractual terms and conditions Trimax was to cover all the aspects of providing, computerising, implementing and maintaining ETIM and ORS with web facility for six years ending 11 December 2014. It also included providing training (including hand holding training) to the Corporation's employees/officials, transferring ownership of all the assets including Hardware and System Software (excluding proprietary software) to the Corporation at free of cost. The contract envisaged that Trimax was to submit an exit management plan in writing within 90 days from the effective date of agreement. There was delay in handing over the exit plan which was handed over only in October 2014 instead of within 90 days from the date of agreement (22 July 2010).

The Management stated (December 2014) that Trimax has already complied with submission of Exit Management plan, submission of source code, imparting hand holding training to Corporation officials and data dictionary as per contractual terms. However, after due "MAKE and BUY" Analysis discussion, it was examined on whether Corporation can take over the ETIM and ORS project and operate on its own. Non-availability of adequate and suitable technical manpower, technical support (for operations and maintenance) financial implication (for manpower, hardware, software, *etc.*) and the constraints on recruitment, etc. were the reasons for not taking the complete operations independently. In the mean time, Corporation has initiated the process for selection of a new system integrator for up-gradation of ETIM & ORS project. The new system integrator shall require a lead time of approximately nine months for the development and deployment of the new/upgraded ETIM & ORS system. Moreover, in order to have a complete hand holding without any disruption in the operations of ticketing system between the existing and the new system integrator there will be a requirement of additional lead time. Hence, considering the overall impact on the business it has been concluded by the Corporation for extending the existing contract with Trimax for one year.

The fact remained that the aim of business continuity plan was to carry on the business independently without any hindrance after completion of validity of contract period. Under the circumstances, the Corporation, for its business continuity, has no alternative but to rely on the support of either Trimax or third parties in so far as its e-ticketing and on-line reservations are concerned. It is pertinent to note that pending initiation/finalisation of tendering process for next term, the Corporation initiated extension of existing contract with Trimax for one year which indicated the fact of its incapability to continue the business of e-ticketing and on-line reservations independently.

Miscellaneous issues

3.16.1 The transaction table 'ticket' contains departure date and time of the bus. Audit however, observed that record entries in these columns appeared as 0/0/0000 and 00:00:00 respectively. In so long as the conductors are not instructed to punch the date and time of the actual departure of the bus through ETIM by making it mandatory, the objective of designing the system for improving the operations was defeated.

3.16.2 As per terms of contract ETIM was to be kept ready 40 minutes before the scheduled departure time (*30 minutes* before the sign on time and Sign on to be done before *10 minutes* of the departure of the buses). The penalty of ₹ 1,50,000 per depot/per month was recoverable if the average delay was between 0 and 10 *minutes* before schedule sign on time. Scrutiny of conductors' availability table revealed monthly average delay between 21 and 39 minutes in Asti Depot (District: Beed) during July 2011 to March 2012. The penalty recoverable as per contract worked out to ₹ 13.50 lakh. However, the same was not recovered from Trimax till date (December 2014).

The Management stated (December 2014) that all SLA parameters were considered as per SLA business rules. SLA Formula's was used as per the business rule document and penalty was applicable after applying the SLA business rules.

The reply was not acceptable as the SLA software developed and deployed was kept by Trimax outside the database.

3.16.3 As per terms of contract, the application development should be made free from any vulnerability and provide a 'bug' free environment for the entire solution during the contractual period. The 'Correctness of the delivery' requirement clause of the SLA also stipulated that the software component should be bug/defect free after the completion of the User Acceptance Testing (UAT) and that the service provider would be liable to pay a penalty of ₹ 5,000 per bug/error/defect reported after UAT. The UAT of the ORS and the ETIM was conducted on 29 December 2009 and 16 January 2010 respectively.

Scrutiny of data revealed reporting of 59,794 errors (ORS 197 and ETIM 59,597) logged after the UAT and up to 9 May 2014.

The Management replied (December 2014) that these tables were created to handle exceptional conditions to maintain transactional data integrity so that later on, these logs can be further examined for application performance tuning & enhancement in the system and these findings would not hamper the operations or business.

The reply was not correct as verified from the SLA which, in its correctness of delivery definition, inter alia, stipulated that "Correctness would mean that submission of all software components/ source code etc after the completion of the UAT (or the 1 UAT), should be defect/bug free".

3.17 Conclusion and Recommendations

The Corporation had not framed any IT policy laying down procedures, rules and regulations to oversee and monitor its IT environment.

The Corporation may formulate IT policy laying down procedures, rules and regulations.

The deficient input control and validation checks resulted in low assurance regarding completeness and reliability of data as observed from the tables containing details of freedom fighters, Arjuna awardees *etc*. There was deficient systems design resulting in non-capturing of data for grant of concessions.

The Corporation may ensure sufficient input controls and validation checks to have assurance of completeness and reliability of data.

The system could not be used for an effective MIS, data mining and data integration as envisaged in the scope of the contract due to non-capturing of details of buses available with depots, manual pass collection data, digitised routes and bus stops, digitisation of data of pass holders.

The Corporation may evolve a system to make use of the data captured in the e-ticketing database as business intelligent tool for improving the business operations.

The Corporation provided the infrastructure to Trimax at EDP centre and depot/bus stand without recovery of charges and also did not conduct the System performance audit as provided in the agreement with Trimax.

The terms and conditions of agreement may be adhered to avoid any financial loss to the Corporation.

Audit findings were reported (December 2014) to GoM; the reply was awaited (December 2014).

Chapter IV

Compliance Audit Paragraphs

Chapter IV

Compliance Audit Paragraphs

Important Audit findings emerging from test check of transactions of the State Government companies are included in this Chapter.

Government companies

Maharashtra Small Scale Industries Development Corporation Limited

4.1 *Loss of revenue*

Maharashtra Small Scale Industries Development Corporation Limited could not recover license fee of ₹ 64.80 lakh for its godowns due to failure in taking possession of godowns immediately after arrears of licensee fee exceeded the amount of Security Deposit obtained from licensees.

Maharashtra Small Scale Industries Development Corporation Limited (Company) allotted (August 2009) two godowns on leave and license basis at Ahmednagar and Kolhapur to M/s Ganga Vihar Buildcon Private Limited and M/s Lallegro Maskesrv Limited respectively. These godowns were taken on lease from Maharashtra Industrial Development Corporation (MIDC) for a period of 95 years from November 1987 (Ahmednagar) and June 1986 (Kolhapur). The closed area of Ahmednagar godown was 1,513 square feet and open area of 1,13,582 square feet, while the closed area of Kolhapur godown was 5,951 square feet and open area of 61,480 square feet. As per the agreement (September and October 2009) monthly license fee payable was ₹ 2.35 lakh for Ahmednagar godown and ₹ 1.74 lakh for Kolhapur godown. The agreement provided that necessary repairs were to be carried out by the Company and expenses on repairs were to be paid by licensee which were to be adjusted against the lease rent payable by them. The possession of both godowns was handed over to licensees in September and October 2009 respectively.

The agreement provided a moratorium period of 90 days from the date of agreement for completion of repairs. The lease rent was payable from the date of commencement of use of godown or expiry of moratorium period of 90 days whichever was earlier. The agreement was modified in March 2010 and 90 days were provided from the date of communication of sanction for repairs accorded by MIDC instead of 90 days from the date of agreement. The permission for repairs was received from MIDC in March 2010 for Ahmednagar godown and in August 2010 for Kolhapur godown and the Company placed work orders in April 2011 for repairs of both the godowns at a cost of ₹ 21.87 lakh. The repairs were however not carried out and the Company took over the possession of both godowns in March 2012.

Audit observed (May 2014) that as per the terms of agreement license fee was recoverable from July 2010 for Ahmednagar godown and from December 2010 for Kolhapur godown after considering 90 days from the date of sanction for repairs. However, the Company raised bills of ₹ 40.83 lakh from June 2011 to March 2012 on both the licensees which were not paid so far (November 2014). The Company had not raised bills of ₹ 36.23 lakh for earlier period from July 2010 to May 2011 (11 months) for godown at Ahmednagar and from December 2010 to May 2011 (six months) for Kolhapur godown. Thus, the total license fee recoverable from both licensees worked out to ₹ 77.06 lakh[46] till possession of godowns was taken over by the Company. Ideally, the Company should have taken back possession as soon as the arrears of license fee exceeded the amount of Security Deposit (SD) of ₹ 12.26 lakh.

Thus, failure to recover license fee as per agreement and not taking possession of godowns immediately after non-payment of license fee exceeding SD and non raising demand for the period prior to June 2011 resulted in non-recovery of license fee of ₹ 64.80 lakh after adjusting SD of ₹ 12.26 lakh.

The Management while accepting (September 2014) the audit contention stated that they have raised the claims for both godowns and the amount will be recovered from licensees. The reply was also endorsed by the Government (October 2014). The reply of the Management confirms that the Management did not take timely action and as a result chances for recovery of claims were remote.

Mahila Arthik Vikas Mahamandal

4.2 *Non claiming of Income Tax refund*

Mahila Arthik Vikas Mahamandal did not claim refund of Income Tax deducted at source by the banks during FY 2008-09 to 2012-13 which resulted in loss of ₹ 37.81 lakh.

Mahila Arthik Vikas Mahamandal (Company) invests its surplus funds in Fixed Deposits (FDs) with Nationalised banks. During the Financial Year (FY) 2008-09 to 2013-14, the Company earned interest of ₹ 3.88 crore on fixed deposits on which banks deducted Income Tax (IT) of ₹ 39.89 lakh[47] at source (TDS). The Company being a non-profit organisation was exempt

[46] ₹ 49.29 lakh - Ahmednagar; ₹ 27.77 lakh - Kolhapur

[47] 2008-09-₹ 1.67 lakh, 2009-10-₹ 0.13 lakh, 2010-11-₹ 7.64 lakh, 2011-12-₹ 10.51 lakh, 2012-13-₹ 17.86 lakh and 2013-14-₹ 2.08 lakh

under Section 11 of the Income Tax Act, 1961, from payment of IT on interest earned on FDs with banks.

Audit observed (February 2014) that the Company in the IT return filed for the FY 2008-09 had not claimed refund of ₹ 1.67 lakh being TDS by banks. Further, the IT returns from FY 2009-10 onwards were yet to be filed (September 2014). Section 139(4) of IT Act, 1961 allowed the Company to file IT return before the expiry of one year from the end of the relevant assessment year or before the completion of assessment by IT Department, whichever was earlier. The Company also did not file its revised IT returns for FY 2008-09 claiming refund of TDS from IT Department under Section 139(5) which provided that revised return could be filed at any time before the expiry of one year from the end of the relevant assessment year or before the completion of assessment, whichever was earlier.

The Company had thus lost the opportunity to revise the IT return for FY 2008-09 and filing of IT returns for FY 2009-10 to 2012-13, as the time limit for claiming IT refund had already expired (March 2014). This resulted in loss of ₹ 37.81 lakh to the Company.

The Management while accepting (September 2014) the audit contention stated that returns could not be filed due to non finalisation of their annual accounts. The Management further stated that they have started the process for getting refund from IT Department. The reply was also endorsed by the Government (November 2014). The reply was not acceptable as it was the duty of the Management to finalise the Accounts in time and submit the IT returns which was not adhered to. Further, the time limit for filing IT returns up to FY 2012-13 had already expired.

Maharashtra State Power Generation Company Limited

4.3 *Repairs and Maintenance of Coal based Thermal Power Generating Units*

Introduction

4.3.1 Maharashtra State Power Generation Company Limited (Company) had seven coal based Thermal Power Stations (TPS) with a total generation capacity of 7,980 Mega Watt (MW) of 29 units as of 31 March 2014. For assessing performance of power stations and for fixation of tariff the Maharashtra Electricity Regulatory Commission (MERC) prescribed performance parameters like plant availability, auxiliary consumption, heat rate, oil consumption *etc.* The plant availability[48] prescribed by MERC ranged

[48] Plant availability during any given period is the ratio of hours during which plant is actually operated and maximum possible hours

between 62.04 and 85 *per cent* for seven power stations during 2010-11 to 2013-14. In case of shortfall in plant availability during any year due to controllable factors, the proportionate annual fixed charges[49] were not allowed by MERC to be passed on to consumers through tariff and the Company had to bear that loss. Thus, the Company was to ensure timely repair/replacement of defective/deteriorated equipment/system in the plant to achieve optimum efficiency and plant availability.

Audit covered scrutiny of repair and maintenance activities at five TPS (23 units) situated at Bhusawal, Chandrapur, Khaperkheda, Paras and Parli (installed capacity of 6,730 MW) during 2010-11 to 2013-14. The expenditure on repairs and maintenance works by these five TPS was ₹ 1,818.65 crore during 2010-11 to 2013-14.

Audit findings emerged from the examination of records at five TPS are discussed below:

Annual/Capital overhauls

Planning of overhauls

4.3.2 The Capital Overhaul (COH) of a generating unit is taken up once in five years while Annual Overhaul (AOH) is to be carried out annually. Details of AOH/COH planned, actually carried out and shortfalls at five TPS during 2010-11 to 2013-14 were as under:

Year	No. of units planned		No. of units actually taken up		Shortfall	
	AOH	COH	AOH	COH	AOH	COH
2010-11	15	2	6	2	9	0
2011-12	18	5	10	2	8	3
2012-13	15	3	7	2	8	1
2013-14	13	4	6	1	7	3
Total	**61**	**14**	**29**	**7**	**32**	**7**

(Source: Information furnished by the Company)

It could be seen from above that there was significant shortfall of 39 units in AOH/COH (52 *per cent)* as compared to 75 units planned during 2010-11 to 2013-14. Audit observed that AOH of four units were taken up once, seven units twice and two units thrice during 2010-11 to 2013-14 as against once in a year. Further, COH of seven units was not carried out during last five years (2009-10 to 2013-14) though they were due as per the norms.

[49] Annual fixed charges included operation and maintenance expenses, depreciation, interest on loans, interest on working capital and return on equity capital *minus* non- tariff income

The Management stated (November 2014) that shortfall in AOH/COH was due to critical grid condition. The fact, however, remained that the deferment of overhauls had an adverse impact on the performance of units leading to lower plant availability. The plant availability of five power stations was between 26.66 and 83.85 *per cent* during 2010-11 to 2013-14 as against minimum plant availability at 80[50] and 85 *per cent* prescribed by MERC for old and new units respectively.

Execution of overhauls

4.3.3 As per the time schedule prescribed by the Company, AOH and COH were to be completed in 20-35 days and 35-60 days respectively. The completion of overhaul within the stipulated time is crucial as high overhauling cycle time leads to loss of generation and reduced plant availability. The strategic and advance planning, timely mobilisation of resources, meticulous monitoring and dedicated round the clock effort reduces the overhaul time.

Avoidable delay in completion of overhauls

4.3.4 Audit observed avoidable delay in AOH/COH of 10 units due to lack of proper planning as discussed below:

Sl. No.	No. of overhauls	Prescribed time (in days)	Actual time taken (days)	Total avoidable delay (in days)	Controllable factors for delay	Loss of generation (MUs)
1	5 (2 AOH/ 3 COH)	25-45	35-60	47 (2 to 17 per overhaul)	Non-availability of stock of critical spare materials, Tool and Plants (T&P) and capital insured spares	228.13
2	4 (3 AOH/ 1 COH)	25-35	37-104	81 (4 to 47 per overhaul)	Award of work orders after declaration/closure of the units for overhauls	216.06
3	1 (AOH)	35	46	11	Non-availability of scaffolding system[51] required for boiler overhaul	68.92
Total	**10**	-	-	**139**	-	**513.11**

As seen from above that there was avoidable delay of 139 days in completion of 10 overhauls leading to loss of generation of 513.11 Million Units (MUs) (sale value: ₹ 116.73 crore) as detailed in **Annexure-4.** These delays could

[50] Except 62.04 *per cent* for Chandrapur TPS during 2010-11

[51] Scaffolding system was erected in the boiler area to support execution of various repair works simultaneously during overhauls

have been avoided by proper planning for awarding of overhaul contracts and ensuring availability of spare parts and other equipment necessary for overhaul.

Preventive maintenance of equipment

Electro Static precipitator hoppers

4.3.5 The Ash Handling Plant (AHP) of unit 5 at Bhusawal TPS was taken over by the Company on 5 August 2013 for operation and maintenance. As per preventive maintenance practice of Electro Static Precipitator (ESP) hoppers prescribed in the Original Equipment Manufacturer (OEM) (Bharat Heavy Electrical Limited (BHEL)) manual, the Company was to ensure that fly ash was not accumulated in ESP hoppers which may otherwise lead to collapse of the same.

The fly ash evacuation system was not working properly and hence the Company was to ensure removal of fly ash manually to avoid accumulation of fly ash inside the ESP hoppers to prevent structural damages. However, as the fly ash was not removed manually, accumulation of fly ash (15,380 cubic metre) resulted in collapse (November 2013) of eight ESP hoppers. Consequently, commercial date of operation (COD) of the unit was deferred and declared on 3 January 2014 and capacity of the unit of 500 MW was also de-rated to 400 MW. The unit was restored to its rated capacity of 500 MW from 1 September 2014 after repair works of ₹ 16.52 crore. The cost of repairs could not be claimed from BHEL as the collapse of ESP hoppers was due to lack of preventive maintenance.

Thus, due to non-adherence to maintenance practices prescribed in OEM manual, the Company incurred avoidable expenditure of ₹ 16.52 crore on the repair works. The Company also suffered loss of generation of 399.73 MUs[52] on reduced load of the unit during January-August 2014 (sale value: ₹ 103.13 crore[53]).

The Management accepted (November 2014) that fly ash was required to be manually removed for avoiding structural damage to ESP hoppers. However, the Company did not offer any remarks on the issue of non-removal of fly ash manually in the instant case which resulted in collapse of ESP hoppers.

[52] (100 MW* 241 days * 24 hours) at average plant load factor of 69.11 *per cent* for 2013-14 and 2014-15 (up to October 2015)

[53] 399.73 MUs * 10,00,000 * ₹ 2.58 per unit

Boiler tube leakages

4.3.6 The commercial operation of unit 4 in Bhusawal TPS was started from 16 November 2012. The Company was required to maintain water chemistry parameters of the plant as prescribed by the OEM (BHEL) and carry out proper acid cleaning to keep the boiler tubes free from acidic corrosion/ deposition which may otherwise lead to permanent damages to Boiler tubes.

Audit observed that the Company had not adhered to prescribed boiler maintenance practices and improper water chemistry of input water used for boiler, lack of proper acid cleaning, non-rectification of malfunction of water chemistry treatment sub-system and leakage of condenser *etc.* caused frequent Boiler Tube Leakages (BTL) on 15 occasions (65 days forced outages[54]) during November 2012 to October 2014. The Company suffered loss of generation of 777.56 MUs (sale value: ₹ 198.28 crore[55]) during the period of forced outages.

The Management stated (November 2014) that acid cleaning work will be carried out in forthcoming COH of the unit. Thus, the Company did not adhere to prescribed maintenance practices of boiler tubes which caused extensive damages leading to frequent BTL.

Coal mill pumps

4.3.7 The Company had installed BBD[56] make Coal Mills (CMs) in five units at Chandrapur (unit 7), Paras (unit 3 and 4) and Parli (unit 6 and 7) which were commissioned on 1 October 1997, 31 March 2008, 31 August 2010, 1 November 2007 and 31 July 2010 respectively. These CMs were provided with High Pressure (HP) pumps and Ball and Socket (B&S) pumps for providing oil lubrication to the bearing system of CMs.

Audit observed high failure rate of HP pumps (113 occasions[57]) and B&S pumps (39 occasions[58]) at five units during 2010-11 to 2013-14. Of these, on 45 and 33 occasions pumps were replaced. The Company incurred total expenditure of ₹ 3.07 crore on replacement of these 78 failed pumps (45 HP pumps: ₹ 1.87 crore and 33 B&S pumps: ₹ 1.20 crore). The high failure rate of pumps was due to contamination of lubricating oil resulting from inadequate seal oil pressure and lack of timely replacement of seal air gasket of CMs. Thus, failure of pumps could have been minimised by adopting preventive maintenance practices and minimised the expenditure of ₹ 3.07 crore on replacement of failed pumps during 2010-14.

[54] Forced outages means closure of plant due to unplanned break downs

[55] 777.56 MUs * 10, 00,000 * ₹ 2.55 per unit

[56] BBD stands for B-Broyer (inventor), B-Boulet (French word for balls) and D-Direct firing

[57] Chandrapur TPS : 8, Paras TPS:10 and Parli TPS: 95

[58] Chandrapur TPS: 17, Paras TPS: 7 and Parli TPS: 15

The Management stated (November 2014) that various corrective actions for preventing oil contamination of the lubrication system has now been taken up and failure rate of pumps has reduced.

Repair/replacement of defective equipment

4.3.8 Seven units (Bhusawal unit 4 and 5, Khaperkheda unit 5, Paras unit 3 and 4 and Parli unit 6 and 7) were commissioned during November 2007 to January 2014. The main plants (Boiler, Turbine and Generator) of these units were supplied and commissioned by BHEL while balance of Plant (Coal Handling Plants, Ash Handling Plants *etc.*) were supplied and commissioned by other contractors. Audit noticed instances of delay in repair/replacement of defective equipment during guarantee period as discussed below:

Main plant equipment

4.3.9 Delays in repair/replacement of equipment of main plant by BHEL were as under:

Sl. No.	Name of equipment	Remarks of Audit	Loss of generation in MUs (sale value in ₹)
1.	Turbine Generator wheel blades	The unit 5 of Khaperkheda was commissioned on 16 April 2012. The problem of high vibrations in bearings of Turbine Generator (TG) wheels was noticed during trial operation stage and the same was communicated (January 2012) to BHEL. However, defects were not rectified by BHEL in time. As a result, there was a breakdown of the unit on 22 August 2012. The defects were attended by BHEL only after failure of unit. The unit was resumed on 12 September 2012. Thus, the unit was not available for generation for 21 days.	256.94 (₹ 52.93 crore[59])
2.	Turbine Barring Gear	The Turbine Barring Gear (TBG)[60] of unit 5 at Khaperkheda TPS failed on five occasions during synchronisation stage (April-December 2011) and three occasions (October 2012 to January 2014) after commercial operation. Though, the defects were communicated to BHEL on various occasions, the same were not attended by BHEL till date (November 2014). This contributed to extension of force outages.	60.17 (₹ 12.17 crore[61])
3.	High Pressure Steam Turbine (HPT)	The unit 4 of Paras TPS was facing problem of steam leakages in HPT since commissioning on 31 August 2010. Though HPT overhaul at cost of ₹ 33 lakh was carried (May-June 2012) out by BHEL along with AOH, the problem was not rectified so far (November 2014). The Company started reporting loss of generation of 3 MUs per month due to lower HPT efficiency only from July 2014.	12 (₹ 2.04 crore[62])
Total			**329.11 (₹ 67.14 crore)**

[59] 256.94 MUs * 10,00,000 * ₹ 2.06 per unit

[60] TBG is critical equipment which maintains the speed of turbine to avoid its uneven cooling

[61] (44.12 MUs * 10,00,000 * ₹ 2.01 per unit) *plus* (16.05 MUs * 10,00,000 * ₹ 2.06 per unit)

[62] 12 MUs * 10,00,000 * ₹ 1.70 per unit

As per standard terms of turnkey contract, BHEL was responsible for rectification of defects during testing and within the guarantee period of one year. It was further provided that the BHEL was required to carry out rectification/replacement of defective equipment at his own expense within 15 days from the date of intimation of defects. In case BHEL failed to remove the defects within the specified time, the Company was to undertake the removal of such defects at risk and cost of BHEL by giving 15 days' notice.

Audit observed that the risk and cost clause was ineffective in case of BHEL. BHEL was the OEM and the Company had to depend upon BHEL only for replacement/repairs of equipment. As such, the Company did not enforce the clause for execution of repair works at risk and cost of BHEL. The loss of generation of 329.11 MUs (sale value ₹ 67.14 crore) due to delay in repairs/replacement were also not recoverable from BHEL.

ESP fields

4.3.10 The ESP hopper is meant for storage of fly ash. The ESP hopper of unit 4 of Bhusawal TPS has 72 fields. However, 16 ESP fields were out of service from March-June 2013 onwards. The Company attributed this to poor workmanship of BHEL. Due to non-availability of 16 fields, unit could not be operated at full load and led to loss of generation.

Audit observed that there was inordinate delay in finalisation of contract for repair of ESP fields. The budgetary offer for supply of material required for restoration of fields was sought from BHEL on 30 October 2013 after a period of four months from the date of failure. BHEL submitted the offer in 10 November 2013. The contract for supply of material was awarded to BHEL on 1 March 2014 at a cost of ₹ 7.82 crore. Similarly, contract for erection of fields was awarded to M/s Alstom India Limited, Nagpur on 5 May 2014 at cost of ₹ 3.54 crore. The replacement of the damaged fields was completed on 19 October 2014 after a period of 16-19 months from the date of failure. The Company suffered loss of generation of 467.93 MUs (sale value: ₹ 119.32 crore[63]) due to non-availability of ESP fields during March 2013 to September 2014 which could have been minimised by awarding repairing contracts promptly. Further, the Company had not taken decision for recovery of replacement cost of ₹ 11.36 crore from BHEL till date (October 2014) though the failure of fields was attributed to poor workmanship of BHEL.

The Management in its reply (November 2014) did not offer any justification for delay in finalisation of agencies for repair works.

The delays in repairs/replacement of equipment supplied by contractors other than BHEL are discussed below:

[63] 467.93 MUs * 10,00,000 * ₹ 2.55 per unit

Fly ash evacuation system

4.3.11 The unit 5 of Khaperkheda TPS and unit 4 and 5 of Bhusawal TPS with capacity of 500 MW each unit were commissioned on 16 April 2012, 16 November 2012 and 3 January 2014 respectively. The system for evacuation of fly ash from ESP hoppers to Storage Silos was constructed in all the three units by M/s Techpro Systems Limited, Pune at a cost of ₹ 36.51 crore (Khaperkheda) and ₹ 46.56 crore (Bhusawal). As per the design parameters, fly ash was to be evacuated through vacuum pumps from ESP hoppers to buffer hoppers from where it was to be transported to Silo via dedicated pipelines by pneumatic pressure. The fly ash collected in a shift of eight hours was designed for evacuation in five and half hours. The fly ash is extremely corrosive in nature and if left within ESP hoppers damages equipment. The OEM manual also provided that utmost care was to be taken to ensure that evacuation of fly ash was complete and there was no ash build up in the hopper.

Audit observed that major defects like insufficient design capacity of vacuum pumps, inadequate compressor air pressure, frequent failure of buffer hopper bag filters and ash valves, failure of fluidising blower heater coil *etc.* in the fly ash evacuation system of above three units were noticed during trial run and guarantee period. The defects were however yet to be fully rectified till date (November 2014). As a result, the fly ash was not getting evacuated from ESP hoppers to Buffer hoppers within the stipulated time and it accumulated in ESP hoppers which had an adverse impact on performance of all the three units. The Company reported generation loss of 610.85 MUs (sale value: ₹ 148.60 crore[64]) up to October 2014 in three units. This had also resulted in lower plant availability which was 63.12 and 54.71 *per cent* at Bhusawal (unit 4) and 54.58 and 62.16 *per cent* at Khaperkheda during 2012-13 and 2013-14 as against 80 and 85 *per cent* respectively prescribed by MERC.

Further, the fly ash was required to be unloaded manually and transported to the dumping area and the Company incurred additional expenditure of ₹ 2.69 crore on lifting and transportation of fly ash during April 2012 to October 2014. Besides, accumulated fly ash caused extensive damages to various equipment/auxiliaries of AHP. The Company spent ₹ 4.53 crore on repairs/reconditioning/modification works of various equipment of AHP during 2012-14.

The Management while accepting the fact stated (November 2014) that the matter was taken up with the contractor and various modifications were also carried out but the rated parameters could not be achieved so far. It was further stated that action plan for rectification of defects in the system and improvement of ash evacuation was prepared and implementation was in progress.

64 Bhusawal unit 4: ₹ 91.37 crore (358.31 MUs * 10,00,000* ₹ 2.55 per unit), Bhusawal unit 5: ₹ 26.67 crore (103.38 MUs * 10,00,000* ₹ 2.58 per unit) and Khaperkheda unit 5: ₹ 30.56 crore (149.16 MUs * 10,00,000 * ₹ 2.01/2.06 per unit)

Coal mill reject handling system

4.3.12 Coal Mill Reject Handling System (CMRHS) was an alternative system to the existing manual system for collection and transportation of coal mill rejects to the dumping yard. The contract for erection and commissioning of CMRHS in unit 4 and 5 of Bhusawal TPS was awarded (November 2007) to M/s Tata Power Limited (TPL) at a cost of ₹ 7.03 crore. However, TPL executed the work through vendor (M/s Macawber Beekay Private Limited (MBPL)) approved by the Company.

Audit observed that system installed (November 2012/January 2014) at a cost of ₹ 7.03 crore in both the units was not functional and lying idle till date (October 2014) on account of various problems like lack of adequate compressor air pressure, choking up of coal mill reject discharge pipelines, non-availability of platforms for removal of choke up *etc.* As CMRHS was not in service, coal mill rejects were removed manually. The Company incurred extra expenditure of ₹ 18.32 lakh on transportation of coal mill reject during December 2012 to September 2014.

The Management stated (November 2014) that they are working on restoration of system.

Ash pipeline structure

4.3.13 The work for designing, engineering, manufacturing, installation, testing and commissioning of AHP in unit 3 and 4 of Paras TPS was awarded (August 2005-November 2007) to M/s Techpro India Limited (TIL), Pune and M/s McNally Bharat Engineering Company Limited, Kolkata for ₹ 36.87 crore and ₹ 33.99 crore respectively. As per the terms of contract for unit 4, ash pipe line was to be laid down in the existing pipe rack structure used for unit 3 after ensuring that the structure was designed to cater additional load of pipeline for unit 4. Accordingly, the Company informed (January 2010) M/s TIL for verifying structural stability of the structure and checking of design calculations/drawings to ensure that pipe rack was designed to cater to additional load. However, the pipe line of unit 4 was laid on the existing structure without verifying structural stability and ensuring its strength and the commercial operation of the unit 4 was started from 31 August 2010. Though, the Company was fully aware that the structure was defective, the repair works was not carried out at the risk and cost of the contractor. As a result, the pipe rack structure collapsed on 13 June 2012 resulting in forced outages of unit 3 from 13 to 20 June 2012 and unit 4 from 16 to 25 June 2012 and loss of generation was 102.94 MUs (sale value: ₹ 17.91 crore[65]). The Company constructed (June 2012) temporary structures at cost of ₹ 1.74 crore for resumption of units which was recovered from the contractor by encashing the performance bank guarantee. The contractor finally constructed the permanent structure as per approved design in March 2013.

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[65] 102.94 MUs *10,00,000 * ₹ 1.74 per unit

Had the Company carried out repair works of defective pipe rack structure in time, loss of generation due to collapse could have been avoided. Further, the forced outages contributed to lower availability at 74.36 and 66.51 *per cent* in respect of unit 3 and unit 4 respectively during 2012-13 against 80 *per cent* prescribed by MERC.

The Management stated (November 2014) that the performance bank guarantee of ₹ 3.69 crore was forfeited and structure was restored as per new design at their cost. It was further stated that loss on account of generation loss cannot be recovered from the contractor as per contractual terms. The reply of the Company was however silent as to how the contractor was allowed to execute works without ensuring the strength of structure.

Boiler coils and tubes

4.3.14 The Central Power Research Institute (CPRI) and Regional Boiler Inspector recommended (2009) complete replacement of the deteriorated coils/tubes in the boiler of unit 2 at Bhusawal TPS (BTPS). The loss of revenue on account of generation loss due to BTL was estimated at ₹ 1 crore per day. Accordingly, BTPS submitted (December 2009) a proposal to the Head Office (HO) for procurement of coils/tubes which was approved in August 2010. The replacement was proposed to be carried out during COH planned in 2010-11. The supply order for coils/tubes valuing ₹ 6.81 crore was, however, placed (15 December 2011) with M/s BHEL after 15 months from the date of administrative approval without any justification for delay on record. Audit observed that due to delay in procurement, boiler coils and tubes could not be replaced during COH taken up during August-October 2011 as envisaged. Thus, there was inordinate delay in replacement of deteriorated boiler tubes and coils. The Company suffered loss of generation of 211.44 MUs (sale value: ₹ 55.54 crore[66]) due to 15 incidences of BTL during April 2012 to September 2014. Further, boiler coils/tubes worth ₹ 6.81 crore procured (April 2012-December 2012) were lying idle till date (November 2014).

The Management stated (November 2014) that the replacement is proposed to be carried out during next overhaul.

The matter was reported to the Government (August 2014), their replies were awaited (December 2014).

[66] Calculated at the selling rate of ₹ 3.34, ₹ 2.45 and ₹ 2.43 per unit for 2012-13, 2013-14 and 2014-15 respectively

Conclusions and Recommendation

The annual/capital overhauls of generating units planned by the Company were deferred leading to lower plant availability. The Company did not have a proper system in place to ensure that spare material were available to complete planned/rescheduled overhauls within prescribed time.

The Company may ensure timely award of overhaul contracts and availability of spare material so that planned/ re-scheduled overhauls can be carried out without delay.

The new units did not operate at full efficiency due to delay in repairs/replacement of defective equipment and lack of proper preventive maintenance. The plant availability of seven new units was between 42.80 and 83.85 *per cent* during 2010-11 to 2013-14 which was lower than 80-85 *per cent* prescribed by MERC.

The Company may ensure proper preventive maintenance and timely repairs/replacement of defective equipment to avoid forced outages and consequent loss of generation.

The Company had to depend on the OEM for replacement/repairs of equipment and it did not enforce the risk and cost clause.

The Company may incorporate suitable clause in contracts with OEMs for levy of penalty in case repairs/replacement of defective equipment are not carried out within the specified time.

Maharashtra State Electricity Distribution Company Limited

4.4 *Extra expenditure*

Maharashtra State Electricity Distribution Company Limited incurred an extra expenditure of ₹ 3.94 crore on procurement of meters due to lack of condition in tender for enforcing the suppliers to supply meters at lower rate quoted by them against subsequent tender.

Maharashtra State Electricity Distribution Company Limited (Company) invites tenders during each year for procurement of energy meters. Accordingly, the Company invited (October 2010) tender for procurement of 10 lakh Radio Frequency (RF)[67] meters. The lowest offer (L1) of ₹ 1,485 per meter was received from M/s HPL Electric and Power Private Limited, New Delhi and other four firms agreed to match with L1 rate. The Company considering additional requirement decided (November 2011) to purchase

[67] LTAC Single Phase 5-30 Amps static energy meters with RF communication Port without enclosure

11 lakh meters[68] from the qualified bidders. The Company issued Letters of Award (LoA) on 17 January 2012 to all the five qualified bidders. The delivery schedule for all suppliers stipulated that the first lot of 1.30 lakh meters was to be delivered within two months from the date of LoA and thereafter, at the rate of 4.20 lakh meters per month from the date of release order.

Further, the Company invited (November 2011) second tender for purchase of 20 lakh RF meters with same technical specification. The technical bids were opened on 20 January 2012 and the price bids were opened on 3 January 2013. The delay in opening of tender was due to time taken for retesting of samples and final inter-operability testing reports of new technology RF meters to be procured. The lowest offer (L1) of ₹ 1,323 per meter was received from M/s Rolex Meters Private Limited, Hyderabad and other five bidders agreed to match with L1 rate. The rate offered was lower by ₹ 162 per meter as compared to rate of first tender. The Company placed orders in February 2014 and the supply was to commence from April 2014.

Audit observed (February 2014) that out of six suppliers selected against second tender five were supplying meters against the first tender. The Company procured 2.91 lakh meters from four suppliers at the rate of ₹ 1,485 per meter after opening of price bid during the period from January to October 2013. Out of total 2.91 lakh meters supplied after opening of second tender, 2.23 lakh meters were supplied belatedly for which the Company recovered Liquidated Damages (LD) of ₹ 77.45 lakh as per tender condition. Audit however observed (February 2014) that the Company to safeguard its financial interest should have incorporated a suitable clause in contracts to the effect that during validity of contracts, if any favourable price is offered in subsequent contracts, it should become applicable to the subject contracts. Thus, in the absence of a clause in the tender, the Company procured 2.91 lakh meters to fulfill its requirement from the suppliers at the rates higher than the rates quoted by themselves for similar meters against subsequent tender and incurred extra expenditure of ₹ 3.94 crore.[69]

The Management stated (September 2014) that the Company had followed all the terms and conditions of tender/contract and hence there was no additional expenditure. It was further added that as suggested by Audit, suitable condition would be incorporated in future tenders enforcing suppliers to supply at lower rate quoted by them against subsequent tender. The reply was also endorsed by the Government (September 2014).

[68] Genus Power Infrastructure Limited-1 lakh meters, Himachal Energy Private Limited-1 lakh meters, HPL Electric and Power Private Limited-4.30 lakh meters, Palmohan Electronics Private Limited-3.70 lakh meters and Rolex Meters Private Limited-1 lakh meters

[69] 2.91 lakh meters x Rate difference ₹ 162 per meter less LD recovered ₹ 77.45 lakh

4.5 *Undue benefit to HT consumer*

Maharashtra State Electricity Distribution Company Limited supplied electricity for construction activity at industrial rate instead of commercial rate thereby benefiting consumer by ₹ 50.94 lakh.

Maharashtra Electricity Regulatory Commission tariff order (August 2009), provides that the connection for construction activity was to be classified under 'commercial category'. The tariff for commercial activity was comparatively higher than the industrial activity.

Maharashtra State Electricity Distribution Company Limited (Company) sanctioned (August 2008) a temporary High Tension (HT) power supply connection with a connected load of 520 KW to M/s B.G. Shirke Construction Technology Private Limited (Consumer No.028659035790). The activity of the consumer included construction of housing project in Sectors 16 and 17, Kharghar, Navi Mumbai. The casting yard/batching plant and labour camp required for construction activity were situated at Sector 15. Power supply to all these activities was managed through the above connection.

Audit observed (March 2014) that the above HT connection to M/s B.G. Shirke was categorised by the Company under 'industrial category' instead of 'commercial category' for the period from September 2009 to July 2011 and thereafter the connection was disconnected. The consumer then applied (November 2011) for another HT connection for construction of housing project at Sector 36, Kharghar. Accordingly, the connection was sanctioned by the Company (January 2012) for a connected load of 840 KW (Consumer No.028659039080) under commercial category. The consumer requested (December 2011) for a third connection for casting yard/labour camp located in Sector 15, Kharghar with a connected load of 464 KW which was sanctioned under industrial category (Consumer No.028659038890). As the construction of housing project and related casting yard/batching plants were in the nature of construction activity, the supply to above consumer should have been categorised as commercial category instead of industrial category. Thus, providing electricity supply at two sites (Consumer Nos.028659035790 and 028659038890) under industrial category instead of commercial category resulted in undue benefit of ₹ 50.94[70] lakh to M/s B.G. Shirke. In similar other cases, audit observed that two consumers *viz*: M/s J. Kumar Infra Projects Limited (Consumer No.028619040230) and M/s Larsen and Toubro Limited (Consumer No.000149039810) were provided connections for batching plant/casting yard at commercial rate.

The Management stated (October 2014) that the industrial tariff was applied as the consumer was engaged in manufacturing of cement blocks and there was no construction activity. The Company further stated that two similar

[70] Difference in commercial and industrial rate during September 2009 to July 2011 for first connection (₹ 19.64 lakh) and during April 2012 to April 2014 for third connection (₹ 31.30 lakh)

consumers *viz*: M/s J. Kumar Infra Projects Limited (Consumer No.028619040230) and M/s Larsen and Toubro Limited (Consumer No.000149039810) were provided common connections for batching plant/ casting yard and construction activity and therefore commercial tariff was applied to them. The reply was also endorsed by the Government (October 2014). The reply was not acceptable as the Consumer had used the connection for batching plant/casting yard as well as for construction activity. The Company in its Technical feasibility report (January 2012) had also mentioned the purpose as commercial and proposed commercial tariff. Hence, the Company should have applied commercial tariff in this case also.

4.6 *Undue favour to supplier*

Maharashtra State Electricity Distribution Company Limited in violation of tender condition paid Price Variation of ₹ 2.77 crore for belated supply of distribution transformers.

Maharashtra State Electricity Distribution Company Limited (Company) invited (January 2011) tender for supply of 13,876 three phase Distribution Transformers (DTs) and offers received there against were opened in March 2011. The Company issued (September 2011 and June 2012) supply orders to M/s Accurate Transformers Limited (ATL), New Delhi for purchase of 12,219[71] three phase DTs at a cost of ₹ 98.16 crore and transformers were to be delivered as per the delivery schedule prescribed by the Company.

Clause 6 of Special Terms and conditions read with Clause 28 of Section II of the tender stipulated that Liquidated Damages (LD) at half *per cent* per week or part of week for the delayed delivery subject to a maximum of 10 *per cent* of the contract price were to be levied in case of delay in supplying the DTs. Further no Positive Price Variation (PPV) was applicable for the delayed delivery as well as if the supply could not be brought into use where delay was not attributable to the Company.

Audit observed (February 2014) that 2,947 DTs were supplied during the period from January to November 2012 by M/s ATL before the Scheduled Delivery Date (SDD). However, these transformers required certain rectifications. The rectifications in these transformers were carried out by M/s ATL after SDD. The Company had therefore recovered LD of ₹ 0.55 crore for delay ranging from one to 355 days from the SDD to the date of attending the rectifications. Audit also observed that despite delay in rectification, the Company also paid PPV of ₹ 2.77 crore up to the SDD though the same was not payable as per terms of tender. Thus, the payment of PPV of ₹ 2.77 crore was irregular and granted undue benefit to the supplier.

[71] Original order (September 2011) of 9,256 DTs and extension order (June 2012) for 2,963 DTs

The Management accepted (December 2014) the audit observation and stated that the price variation of ₹ 2.77 crore was paid erroneously and would be recovered from M/s ATL. However, the amount was yet to be recovered (December 2014).

The matter was reported to the Government (September 2014); their reply was awaited (December 2014).

MUMBAI **(PUNAM PANDEY)**
The 3 MAR 2015 **Principal Accountant General (Audit)-III, Maharashtra**

Countersigned

NEW DELHI **(SHASHI KANT SHARMA)**
The 5 MAR 2015 **Comptroller and Auditor General of India**

ANNEXURES

Annexure-1

Statement showing investment made by State Government in Public Sector Undertakings whose accounts were in arrears

(Referred to in paragraph 1.12)

(₹ in crore)

Sl. No.	Sector and Name of the PSU	Year up to which accounts finalised	Paid up capital as per latest finalised accounts	Arrear years in which investment received	Investment made by State Government during the years in which accounts are in arrear		
					Equity	Loan	Grants/ Subsidy
A : Working Government Companies							
1.	Punyashloka Ahilyadevi Maharashtra Mendi Va Sheli Vikas Mahamandal Limited	2010-11	4.73	2011-12 to 2013-14	1.24	--	22.20
2.	The Maharashtra Fisheries Development Corporation Limited	2009-10	2.75	2010-11 to 2013-14	1.29	--	1.52
3.	Maharashtra Co-operative Development Corporation Limited	2005-06	6.47	2006-07 to 2013-14	1.52	--	--
4.	Maharashtra Small Scale Industries Development Corporation Limited	2010-11	14.50	2011-12 to 2013-14	--	--	6.97
5.	Maharashtra State Handicapped Finance and Development Corporation Limited	2009-10	6.43	2010-11 to 2013-14	32.00	--	6.07
6.	Mahatma Phule Backward Class Development Corporation Limited	2010-11	326.24	2011-12 to 2013-14	285.39	--	22.81
7.	Sant Rohidas Leather Industries & Charmakar Development Corporation Limited	2008-09	73.21	2009-10 to 2013-14	208.00	--	49.95
8.	Vasantrao Naik Vimukta Jatis & Nomadic Tribes Development Corporation Limited	2011-12	131.28	2012-13 to 2013-14	46.00	--	12.04
9.	Maharashtra State Road Development Corporation Limited	2011-12	773.56	2012-13 to 2013-14	--	179.02	208.00
10.	Maharashtra Tourism Development Corporation Limited	2011-12	15.39	2012-13 to 2013-14	--	--	154.22
11.	Maharashtra Ex-Servicemen Corporation Limited	2011-12	4.95	2012-13 to 2013-14	10.00	--	--
12.	Mahila Arthik Vikas Mahamandal	2011-12	2.67	2012-13 to 2013-14	0.07	--	44.59
	Total		**1,362.18**		**585.51**	**179.02**	**528.37**

Annexure-2
Glossary of terms used in Performance Audit Report of Maharashtra State Road Development Corporation Limited
(Referred to in paragraph No.2.1)

Sl. No.	Term	What it refers to.
1.	Public Private Participation	A Public Private Partnership (PPP) is the arrangement involving participation of both the Government and Private Sector to complete the infrastructure project.
2.	Built, Operate and Transfer	Private Sector builds an infrastructure project, operates it and after recovery of the cost transfers ownership of the project to the Government.
3.	Concession Agreement	Concession Agreement grants to the concessionaire the concession set forth therein including exclusive rights, license and authority to construct, operate and maintain the project for a period specified in the agreement.
4.	Concessionaire	Person or firm that operates a business within the premises belonging to another (the grantor) under a concession.
5.	Special Purpose Vehicle	A legal entity created solely to serve a particular function.
6.	Joint Venture	A Joint Venture is a business agreement in which the parties agree to develop, for a finite time, through a new entity and contributing to the capital of the new entity.
7.	Viability Gap Funding	This indicates the gap between the estimated cost of the project and estimated revenue there from. The financial viability gap usually arises from long gestation periods and inability to increase user charges to make the project viable.
8.	Chainage	An imaginary line used to measure the distance, often corresponding to the centre of a straight road.
9.	Operation, Maintenance and Transfer	As per operation, maintenance and transfer (OMT) arrangements, private parties operates an infrastructure projects during the period specified in the agreement and transfers ownership of project to the Government thereafter.
10.	Securitisation	It is a type of OMT contract wherein the entire cost of project is collected upfront from the contractor by assigning toll collection rights during the concession period quoted by the contractor.
11.	Net Present Value	NPV is a central tool in discounted cash flow (DCF) analysis and is a standard method for using the time value of the money to appraise long-term projects.
12.	IRR	Internal Rate of Return (IRR) is a rate of return used in capital budgeting to measure and compare the profitability of investments.
13.	Benkelman beam deflection measurement test	This test covers the determination of the rebound deflection of a pavement under a standard wheel load and tyre pressure, with or without temperature measurements.

Annexure-3

Statement showing details of projects executed by the Company, Projects executed on BOT basis and Projects selected for audit scrutiny

(Referred to in paragraph No.2.3)

Sl. No.	Projects executed by the Company	Projects selected from completed sections/components	Projects selected from ongoing sections/ components	Sl. No.	Projects executed on BOT basis	Project selected for audit scrutiny
1	Mumbai-Pune Expressway			1	IRDP Baramati* District-Pune	Two projects (Bhiwandi-Kalyan-Shil Phata and securitisation contract for Mumbai entry points assigned on operation, maintenance and transfer basis) were selected
2	Western Freeway Project (Bandra-Worli-Nariman point Sea Link)		Selected	2	Bhiwandi Kalyan Shil Phata	
3	NASGM Project	Selected	Selected	3	Chalisgaon By-pass	
4	Mumbai Flyover Project			4	IRDP Kolhapur	
5	IRDP Nagpur	Selected	Selected	5	Karmala Bypass	
6	IRDP Amravati	Selected		6	Katol Bypass	
7	IRDP Aurangabad	Selected	Selected	7	Miraj ROB	
8	IRDP Nanded			8	ROB at Warora, District Chandrapur	
9	Satara Kagal Road					
10	IRDP Nandurbar					
11	ROB Phase I (in various cities)					
12	IRDP Pune					
13	IRDP Solapur					
14	IRDP Latur					
15	Thane-Ghod-bunder Road					
16	Satara - Chalkewadi - Patan Road					
17	Mumbai Trans Harbour Project		Selected			
18	Water Transport Project		Selected			

*IRDP Baramati was initially executed by the Company. This project was assigned on BOT basis with augmentation work in October 2010

Annexure-4
Statement showing analysis of reasons for avoidable delay in completion of overhauls and consequent loss of generation
(Referred to in paragraph 4.3.4)

Sl. No.	Name of TPS, unit and installed capacity	Prescri-bed time (days)	Actual time taken (days)/ period	Avoidable delay worked out by audit (days)	Loss of generation during avoidable delay[♦] (MUs)	Energy charges (₹ per unit)	Sale value (₹ in crore) = Col. (6*7* 10,00,000)	Audit observations
1	2	3	4	5	6	7	8	9
A. Non availability of spares								
1.	Chandrapur (unit 3) 210 MW	25 (AOH)	(35) 10 August 2012 to 14 September 2012	5	18.60	2.09	3.89	The delay of five days occurred due to non-availability of seal rings and flat springs required for overhaul of Turbine Generator (TG) sets. The turbine overhaul was ultimately carried out by utilising used springs removed from other units. Audit observed that the Company was aware that there was no stock of seal rings and flat springs since September 2010. However, the supply order was placed only on 6 August 2012 just before start of overhaul. Thus, delay of five days was avoidable. The Management stated (November 2014) that order for seal rings and flat springs was placed before start of overhaul. The reply of the Company was not convincing as due to non-availability of the material, the existing used material had to be reconditioned and utilised which led to delay in Annual Overhaul.
2.	Khaperkheda (unit 5) 500 MW	25 (AOH)	(37) 26 August 2013 to 2 October 2013	2	14.21	2.06	2.93	The delay occurred due to non-availability of special Tools and Plants (T&P) required for turbine overhaul. The same was arranged from other Thermal Power Station (TPS) after commencement of overhaul leading to delay. The Company should have ensured availability of critical materials prior to taking up overhaul. Thus, delay of two days was avoidable. The Management stated (November 2014) that required T&P were not handed over by Bharat Heavy Electrical Limited (BHEL), Original Equipment Manufacturer (OEM) even after repeated requests since commissioning of the unit. It was further stated that care will be taken in future to keep available these special T&P from OEM required for unit overhauls.

[♦] Calculated considering actual plant load factor (PLF) of that particular unit during the respective year, period of avoidable delay and installed capacity of that unit

Sl. No.	Name of TPS, unit and installed capacity	Prescri-bed time (days)	Actual time taken (days)/ period	Avoidable delay worked out by audit (days)	Loss of generation during avoidable delay♦ (MUs)	Energy charges (₹ per unit)	Sale value (₹ in crore) = Col. (6*7* 10,00,000)	Audit observations
1	2	3	4	5	6	7	8	9
3.	Khaperkheda (unit 4) 210 MW	35 (COH)	(43) 3 January 2011 to 15 February 2011	8	36.84	2.15	7.92	The overhauling of the High Pressure Turbine (HPT) was carried out during Capital Overhaul (COH). In case damages to seals/blades are detected, the same have to be transported to OEM workshop which leads to delay in overhaul. Hence, it is a generally accepted practice in power sector to keep a spare HPT module as capital insured spare for immediate replacement of damaged rotor for reduction in overhaul time as well as to increase HPT efficiency. Audit observed that the Company had no spare HPT module in stock. The Company had to get the damaged components of High Pressure (HP) rotor repaired by transporting the same to BHEL workshops at Haridwar and Hyderabad which resulted in extension of COH of the three units by 8 , 17 and 15 days respectively. The Management stated (November 2014) that delay in COH occurred as the HPT related work had to be carried out at BHE'L's workshop. It was further stated that a spare HPT module for unit 7 of Chandrapur will be procured.
4.	Khaperkheda (unit 2) 210 MW	35 (COH)	(52) 1 June 2012 to 23 July 2012	17	52.15	2.42	12.62	
5.	Chandrapur (unit 7) 500 MW	45 (COH)	(60) 29 June 2011 to 28 August 2011	15	106.33	1.93	20.52	
	Total - A			**47**	**228.13**		**47.88**	
B. Delay in award of work contracts for overhaul								
6.	Parli (unit 3) 210 MW	35 (COH)	(104) 22 November 2011 to 6 March 2012	47	115.64	2.58	29.37	The COH of unit planned during April-May 2011 was not carried out due to critical grid condition. Meanwhile, the unit was under forced outage from 15 November 2011 due to damages in Low Tension (LT) panel of turbine board caused by fire accident. Anticipating 45 days required for repairs, the Company declared COH from 22 November 2011-26 December 2011. The damaged LT panels were repaired and commissioned on 18 January 2012. However, the unit was resumed on 6 March 2012 due to delay in completion of COH. It was observed that the process of inviting tenders was initiated after declaration of COH and works of Turbine were started from 23 December 2011 and boiler from 12 January 2012 though the COH was declared from 22 November 2011. The Company should have finalised tenders for COH planned in April-May 2011 and awarded contracts with annual validity so that work starts immediately after the declaration/closure of unit for overhaul. Thus, lack of proper planning resulted in delay of 47 days (from 19 January 2012 to 5 March 2012) in resumption of unit.

♦ Calculated considering actual plant load factor (PLF) of that particular unit during the respective year, period of avoidable delay and installed capacity of that unit

Sl. No.	Name of TPS, unit and installed capacity	Prescri-bed time (days)	Actual time taken (days)/ period	Avoidable delay worked out by audit (days)	Loss of generation during avoidable delay♦ (MUs)	Energy charges (₹ per unit)	Sale value (₹ in crore) = Col. (6*7* 10,00,000)	Audit observations
1	2	3	4	5	6	7	8	9
7.	Parli (unit 4) 210 MW	25 (AOH)	(47) 31 August to 17 October 2011	21	51.67	2.58	13.33	The AOH of the unit was planned in July 2011. The AOH was actually declared from 31 August 2011. Audit observed that the contract for overhauling of TG set was awarded on 21 September 2011 and the work started from the same day which caused avoidable delay of 21 days in completion of overhaul. The Management stated (November 2014) that overhauls were not scheduled in both the cases at Sl. No.6 and 7 and hence proposals were initiated and contracts awarded after declaration of overhaul. As such there was no delay and loss of generation due to delay in work orders. The reply of the Company was not acceptable as the majority of the overhauls planned by the Company were deferred due to critical grid condition. As the overhaul of unit 3 and 4 was planned in April-May 2011 and July 2011 respectively, tenders should have been finalised and contracts awarded with annual validity so that work starts immediately after the closure of units to ensure completion of re-scheduled overhauls within the prescribed time.
8.	Chandrapur (unit 4) 500 MW	25 (AOH)	(57) 16 August 2011 to 12 October 2011	4	14.18	1.93	2.74	The AOH of the unit 4 planned in June 2011 was actually declared from 16 August 2011. Audit observed that the work order for overhauling of TG set was awarded on 20 August 2011 after commencement of overhaul which resulted in avoidable delay of four days in completion of overhaul. The Management stated (November 2014) that work of turbine overhaul was to be started from 21 August 2011 after cooling of the turbine. Thus, there was no generation loss due to placement of order on 20 August 2014. The reply of the Company was not acceptable. The Company should have issue the work order well in advance considering that overhaul was planned in June 2011. It was further seen that penalty for four days was waived off (November 2011) by the Company considering delay in placing the work order.

♦ Calculated considering actual plant load factor (PLF) of that particular unit during the respective year, period of avoidable delay and installed capacity of that unit

Sl. No.	Name of TPS, unit and installed capacity	Prescri-bed time (days)	Actual time taken (days)/ period	Avoidable delay worked out by audit (days)	Loss of generation during avoidable delay* (MUs)	Energy charges (₹ per unit)	Sale value (₹ in crore) = Col. (6*7* 10,00,000)	Audit observations
1	2	3	4	5	6	7	8	9
9.	Paras (unit 3) 250 MW	28 (AOH)	(37) 19 August 2011 to 26 September 2011	9	34.57	1.69	5.84	As per OEM manual, various checks including Low Pressure Turbine (LPT) blade inspection were to be carried out after first year of operation. During the initial stages of planning BHEL offered (15 February 2011) to carry out LPT overhaul and turbine bearing inspection simultaneously during the period of AOH within a period of 15 days. However, the TPS decided not to take up LPT overhaul on the plea that its running hours were less than that recommended by OEM which was contrary to the actual recommendation of BHEL. When BHEL reiterated (19 August 2011) LPT overhaul, TPS agreed (25 August 2011) to take up LPT overhauling and contract for the same was awarded on 2 September 2011. The BHEL completed the turbine overhaul activities on 21 September 2011. If the LPT overhaul was taken up immediately with commencement of AOH, the delay of nine days could have been avoided. The Management accepted (November 2014) that delay in overhaul was due to LPT overhaul. It was further stated that they will take care in future.
Total - B				81	216.06		51.28	
C. Non-availability of scaffolding system								
10.	Bhusawal (unit 4) 500 MW	35 (AOH)	(46) 6 August 2014 to 20 September 2014	11	68.92	2.55	17.57	The delay of 11 days was due to non-availability of Company's own scaffolding system required for boiler overhaul. The Company had to depend on a contractor for supply of scaffolding material during AOH who completed the supply/erection of scaffolding in 18 days as compared to prescribed time of five days which led to delay in completion of AOH. Penalty for the delay was nominal. Audit observed that there was inordinate delay on part of the Company to procure its own scaffolding system. The budgetary offer for procurement of one set of scaffolding system at TPS (for unit 4 and 5) was received in October 2009. The administrative approval for the same was however accorded by Head Office (December 2011) at an estimated cost of ₹ 2.75 crore. The tender for procurement was invited in June 2013 after 17 months from the date of administrative approval. The tender was cancelled (February 2014) being response from a single bidder. The tender was re-floated in June 2014 and the offers were yet to be finalised (October 2014).
Total - C				11	68.92		17.57	
Grand Total (A + B + C)				139	513.11		116.73	

* Calculated considering actual plant load factor (PLF) of that particular unit during the respective year, period of avoidable delay and installed capacity of that unit