

**Report of the Comptroller and
Auditor General of India**

on

Economic Sector

for the year ended March 2018

**GOVERNMENT OF MAHARASHTRA
Report No. 2 of the year 2019**

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Preface

This Report for the year ended 31 March 2018 has been prepared for submission to the Governor of the State of Maharashtra under Article 151 of the Constitution of India.

This Report relates to audit of the Economic Sector of the Government departments conducted under the provisions of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971 and Regulations on Audit and Accounts, 2007 issued thereunder by the Comptroller and Auditor General of India. This Report is required to be placed before the State Legislature under Article 151 (2) of the Constitution of India.

The instances mentioned in this Report are those, which came to notice in the course of test audit for the period 2017-18 as well as those which came to notice in earlier years, but could not be reported in the previous Audit Reports; instances relating to the period subsequent to 2017-18 have also been included, wherever necessary.

The audit has been conducted in conformity with the Auditing Standards (March 2002) issued by the Comptroller and Auditor General of India.

CHAPTER - I

INTRODUCTION

CHAPTER I

INTRODUCTION

1.1 About this Report

This Report of the Comptroller and Auditor General of India (C&AG) relates to matters arising from performance audit of selected schemes and activities and compliance audit of Government Departments¹ and Autonomous Bodies of the Government of Maharashtra (GoM) falling under Economic Sector.

Compliance Audit refers to examination of the transactions relating to expenditure of the audited entities to ascertain whether the provisions of the Constitution of India, applicable laws, rules, regulations and various orders and instructions issued by the competent authorities are being complied with. On the other hand, Performance Audit examines whether the objectives of an organisation, programme or a scheme have been achieved economically, efficiently and effectively.

The primary purpose of this Report is to bring to the notice of the State Legislature, important results of audit. Auditing Standards require that the materiality level for reporting should commensurate with the nature, volume and magnitude of transactions. The findings of audit are expected to enable the Executive to take corrective actions as also to frame policies and directives that will lead to improved operational efficiency and financial management of the organisations thus, contributing to better governance.

This chapter, in addition to explaining the planning and extent of audit, provides a synopsis of the significant deficiencies in working of selected schemes/projects, significant audit observations made during the audit of transactions and follow-up on previous Audit Reports. Chapter II of this Report contains findings arising out of two performance audits. Chapter III contains observations on audit of transactions in Government Departments and on Autonomous Bodies.

1.2 Audited entity profile

The Departments in the Economic Sector in the State at the Secretariat level are headed by Additional Chief Secretaries/Principal Secretaries/Secretaries assisted by Directors/Commissioners and sub-ordinate officers. Autonomous Bodies, subject to audit by the Comptroller and Auditor General of India, are audited by the Principal Accountant General (Audit)-I, Maharashtra, Mumbai and the Accountant General (Audit)-II, Maharashtra, Nagpur.

A summary of the State Government's fiscal transactions during 2017-18 *vis-a-vis* the previous year is given in **Table 1.1**.

¹ Name of the Departments i) Agriculture, Animal Husbandry, Dairy Development and Fisheries; ii) Co-operation and Textile; iii) Food and Civil Supplies and Consumer Protection; iv) Industry, Energy and Labour; v) Public Works; vi) Tourism & Cultural Affairs; vii) Water Resources and viii) Forest

Table 1.1: Summary of Fiscal transactions during 2017-18

(₹ in crore)

2016-17	Receipts	2017-18	2016-17	Disbursements	2017-18
Section-A: Revenue					Total
204693	Revenue receipts	243654	213229	Revenue expenditure	241571
136616	Tax revenue	167932	71609	General services	78535
12709	Non-tax revenue	16242	90282	Social services	93054
33715	Share of Union Taxes/Duties	37219	43843	Economic services	54189
21653	Grants from Government of India	22261	7495	Grants-in-aid and Contributions	15793
Section B: Capital and Others					
-	Miscellaneous Capital Receipts	-	25549	Capital Outlay	26842
1746	Recoveries of Loans and Advances	1778	6277	Loans and Advances disbursed	979
48336	Public debt receipts ^s	48075 [#]	11887	Repayment of Public Debt ^s	15782
-	Appropriation from Contingency fund	-	-	Appropriation to Contingency fund	-
-	Contingency Fund	-	-	Contingency Fund	-
82466	Public Account Receipts	81877	67102 [#]	Public Account Disbursements	70491*
	Opening Cash Balance			Closing Cash Balance	
22672	a) Sinking Fund	27853	27853	a) Sinking Fund	33971 [#]
32881	b) Cash balance	40897	40897	b) Cash balance	54498
392794	Total	444134	392794	Total	444134

Source: Finance Accounts of respective years

^sExcluding ways and means advances (Receipt: ₹ 1,594 crore and Disbursement: ₹ 1,594 crore)

[#]Lower rounding *Higher rounding

1.3 Authority for audit

The authority for audit by the C&AG is derived from Articles 149 and 151 of the Constitution of India and the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971. The C&AG conducts audit of expenditure of the Departments of GoM under the provisions of the C&AG's (DPC) Act, 1971 and Regulations on Audit and Accounts, 2007 issued by the C&AG.

1.4 Organisational structure of the offices of the Principal Accountant General (Audit)-I, Maharashtra, Mumbai and the Accountant General (Audit)-II, Maharashtra, Nagpur

Under the directions of the C&AG, the Offices of the Principal Accountant General (Audit)-I, Maharashtra, Mumbai and the Accountant General (Audit)-II, Maharashtra, Nagpur conduct the audit of the various Government Departments and Offices/ Autonomous Bodies/institutions under them. While 17 districts from Konkan and Western Maharashtra regions fall under the audit jurisdiction of the Principal Accountant General (Audit)-I, Maharashtra, Mumbai, the remaining 19 districts from Vidarbha and Marathwada regions are under the audit jurisdiction of the Accountant General (Audit)-II, Maharashtra, Nagpur.

1.5 Planning and conduct of audit

The audit process starts with the assessment of risk faced by various departments of the GoM, based on expenditure incurred, criticality/ complexity of activities, the levels of delegated financial powers and assessment of overall internal controls and concerns of stakeholders. Previous audit findings are also considered in this exercise. Based on this risk assessment, the frequency and extent of audit are decided. During 2017-18, audit of 297 units (compliance and performance audits) of the various Departments/Organisations was carried out. The audit plan covered those units/entities which were vulnerable to significant risks as perceived by Audit.

After completion of audit of each unit, Inspection Reports (IRs) containing audit findings are issued to the Heads of the Departments. The Departments are requested to furnish replies to the audit findings within one month of receipt of the IRs. Whenever replies are received, audit findings are either settled or further action for compliance is advised. The important audit observations arising out of these IRs are processed for inclusion in the Audit Reports which are submitted to the Governor under Article 151 of the Constitution of India.

1.6 Significant audit observations

1.6.1 Performance audit of programmes/activities/Departments

The significant findings of Performance audits are discussed below.

▪ **Distribution of Agricultural Inputs to Farmers in Maharashtra**

A performance audit on Distribution of Agricultural Inputs to Farmers in Maharashtra for the period 2013-18 indicated that there was shortfall in the supply of seeds as compared to the total requirement of seeds in the State. The seed production chain in the State was adversely affected which was more severe in case of soyabean seed, resulting in shortage in availability of quality certified seeds to the farmers. Allowing re-registration of some companies, overlooking quality deficiencies in Micro Irrigation systems manufactured/supplied by them, placing incorrect facts on record, resulted in extending unwarranted financial benefit to them. The grants released for SC and ST categories by Government of India under Micro Irrigation schemes, could not be utilized. Infrastructure for Deoxyribonucleic acid (DNA) fingerprint test was created without inclusion of provisions of such tests and analysis in Seed Act 1966, resulting in facilities remaining inoperative after construction, besides idle expenditure thereon.

There was underutilization of funds resulting in surrender of fund. There were instances of incorrect reporting in Utilisation Certificates. The unspent balance of funds received as Government of India share was credited to the receipt head of Government account instead of reducing it from the concerned major/minor heads. There were cases of misappropriation of money collected by officials from beneficiaries as farmers' contribution (*Lokwata*). No stringent action was taken by the department against such erring officials.

In the demonstration programmes, the department used old variety of seed instead of new one, which defeated the objectives of promoting new

variety of seed. The production subsidy for foundation and certified seeds was not paid to farmers. There were instances of non-distribution of implements. Micro nutrients were not supplied to farmers in time. The Soil Testing Mini Lab Kits were purchased without assessing the requirement. There were deficiencies in online web portal for Micro Irrigation scheme.

The maintenance of records at field level relating to distribution of agricultural inputs to farmers was deficient; hence audit could not ascertain the beneficiaries to whom the inputs were distributed and whether they were distributed timely. The samples of seeds to be drawn were reduced in last three years, even though the number of producers, distributors and sellers increased. The target for quality control checks was not fixed prior to the beginning of the kharif season and as such there was delay in furnishing quality test reports. There was delay in submitting the test results by the laboratories for agricultural inputs resulting in distribution of inferior quality of inputs to the farmers in case of failed samples. The percentage prescribed for cross check of Micro Irrigation systems by inter-district teams were not exercised by them.

(Paragraph 2.1)

▪ **Management of Tiger Reserves in Maharashtra**

A performance audit on Management of Tiger Reserves in Maharashtra for the period 2012-18 indicated that apex level interventions for enabling policy decisions and major initiatives for protection and conservation of tigers were found to be inadequate. The Tiger Conservation plans, which play a significant role in finalizing the management strategy for 10 years were either not being formulated or were formulated with delays. Compartment histories which are important for providing inputs for plan formulation were not being maintained in any of the Tiger Reserves.

Presence of human settlements and tourist facilities in core tiger habitats caused disturbances to wildlife and also reduced available inviolate space. The buffer area was fragmented owing to large number of villages, farmlands, highways and railway lines resulting in animal deaths. High tension electric lines passing through tiger reserves were not insulated.

Support infrastructure critical for protection of tiger habitats were found inadequate. Unregulated tourism was also a cause of concern. The monitoring and internal control mechanism required strengthening.

(Paragraph 2.2)

1.6.2 Compliance audit of Government transactions

The important findings of compliance audit paragraphs are discussed below:

- **State Compensatory Afforestation Fund Management and Planning Authority (CAMPA)**

Audit of State CAMPA revealed that a huge number of diversion proposals were pending at various stages for approval. The Additional Principal Chief Conservator of Forest cum Nodal Officer did not maintain a database of non-forest land or degraded land received against the diversion of forest land. The details were also not maintained at Additional Principal Chief Conservator of Forest (CAMPA) and at circles. The preparation of annual plan of operation was found deficient as there were cases of inclusion of compensatory afforestation works without adequate survey; non-inclusion of plantation works in plan within the stipulated period; inclusion of inadmissible items under CAMPA and inclusion of plantation works from State scheme. Besides, there were delays in submission of annual plans of operation to the Steering Committee. When compensatory afforestation works were executed on alternate lands, necessary approvals of Ministry of Environment and Forest were not taken always. Ministry of Environment and Forest's stipulations in respect of works permitted to be undertaken with attached condition were also not followed. Thus, CAMPA funds could not be used economically and efficiently as delays in approvals had resulted in cost escalation which was not recovered from the user agencies and CAMPA funds had to be used. The scheme was ineffective in many instances as there were cases of diversion of fund for inadmissible purposes/unsuitable works and non-grounding of compensatory afforestation works under Annual Plan Operation as per rules. The reconciliation by Additional Principal Chief Conservator of Forest cum Nodal Officer with Adhoc CAMPA for the amounts credited by the User Agencies was still pending. There were unreconciled differences between amounts released by State CAMPA and that shown as received by the circle offices under CAMPA. There were weak monitoring with resultant poor quality in execution of works.

(Paragraph 3.1)

- **Implementation of Small Hydro Projects on PPP basis in Maharashtra**

Audit on implementation of Small Hydro Project (SHP) on PPP basis covering the period 2013-14 to 2017-18 revealed that out of 121 projects identified by the Department, feasibility study of 61 sites (installed capacity of 266.87 Mega Watt) had not been completed at the time of identification of sites and 27 sites (installed capacity of 78.65 MW) were dropped being financially infeasible. Further as against estimated installed capacity of 417.85 MW, only 36.85 MW installed capacity was achieved.

In respect of six selected commissioned projects, one project was commissioned within scheduled time and five projects were commissioned after delays ranging from 17 months to 63 months. There was time overrun ranging from 39 to 53 months in respect of two ongoing

projects due to non-completion of dam and land handed over to developer was not in the name of Department. The projected annual power generation was not achieved, among other things, due to release of lesser volume of water.

Thus, due to improper planning and inadequate monitoring the objective of harnessing the green power with the help of private sector was largely defeated. Had the planning and monitoring been better, the outcome could have been different.

(Paragraph 3.2)

▪ **Implementation of Accelerated Irrigation Benefits Programme**

Under Accelerated Irrigation Benefit Programme (AIBP), 68 major/minor projects were included in the State since inception, of which 39 projects were completed prior to March 2013. Out of the remaining 29 projects, five were completed during 2013-18 leaving 24 projects ongoing as on March 2018.

The total funds received under AIBP were ₹ 11,541.58 crore (GoI share: ₹ 1,346.05 crore; GoM share: ₹ 10,195.53 crore) during 2013-18 against which expenditure incurred was ₹ 10,865.81 crore. The GoM delayed request for recovery of ₹ 90.08 crore towards construction and operation cost of Tillari Major Irrigation Project from Government of Goa since 2013-14. The Jalgaon Municipal Corporation (JMC) owed ₹ 757.85 crore to the Tapi Irrigation Development Corporation towards cost involved in increasing height of Waghur dam for providing drinking water to JMC.

Out of 18 test checked projects in audit, 16 (89 *per cent*) were not completed within the timeline thereby defeating the very objective of accelerating the completion of irrigation projects under the AIBP. The time overrun in 18 projects ranged between five years to 10 years while the cost overrun was ₹ 7,486.50 crore.

In Wang project out of 1,922 families to be resettled only 832 were resettled while eight amenities in the 15 villages of Wang project and two amenities in one village of Dhom-Balkawadi project were not provided.

(Paragraph 3.3)

- Indecision to close down Mother Dairy, Kurla and Central Dairy, Aarey, Goregaon and to accommodate the identified surplus staff and machineries in Government Milk Scheme, Worli by Dairy Development Department and Government resulted in recurring loss of ₹ 39.11 crore per annum as well as nugatory expenditure of ₹ 17.51 crore.

(Paragraph 3.4)

- Fraudulent payment of ₹ 12.21 crore against purported supply of material, which had actually never been supplied or brought to the work-site.

(Paragraph 3.5)

- Commencement of work without acquisition of required land resulted in blocking of ₹ 2.18 crore on account of secured advance. Besides, ₹ 14.66 crore incurred on works proved to be unproductive.

(Paragraph 3.6.1)

- Unfruitful expenditure of ₹ 3.54 crore was incurred on excavation and dewatering works owing to non-acquisition of required land for Lower Penganga Project.

(Paragraph 3.6.2)

- The objectives of Lower Tapi Project could not be fulfilled owing to slow progress of land acquisition and tardy implementation of construction of dam and gate works there by rendering the expenditure of ₹ 235.02 crore incurred on the project unfruitful.

(Paragraph 3.6.3)

- Excess payment of ₹ 2.54 crore was made to contractor due to payment at higher rates than tendered rates in Sapan Project.

(Paragraph 3.7)

- Incorrect revision of rate analysis resulted in excess payment of ₹ 16.13 crore to the contractor.

(Paragraph 3.8)

- Tardy implementation of the work resulted in unfruitful expenditure of ₹ 7.76 crore due to non-completion of bridge even after lapse of nine years. Moreover, the very objective of providing all weather road connectivity between Chikalhana and Bhatkheda villages was defeated.

(Paragraph 3.9)

- Failure to get the work of submersible bridge across Godavari river executed from the contractor and non-completion of remaining portion of the work for last five years resulted in blocking of ₹ 1.83 crore.

(Paragraph 3.10)

1.7 Responsiveness of Government to Audit

1.7.1 Inspection reports outstanding

Periodical inspections of government departments are conducted to test-check their transactions and verify the maintenance of important accounting and other records as per prescribed rules and procedures. These inspections are followed up with Inspection Reports (IRs) which are also issued to the Heads of the Offices inspected, with copies to the next higher authorities. Half yearly reports of pending IRs are sent to the Secretaries of the departments concerned to facilitate monitoring of action taken on the audit observations included in the IRs.

As of June 2018, 2,766 IRs (8,094 paragraphs) were outstanding. Year-wise details of IRs and paragraphs are shown in **Appendix 1.1**.

1.7.2 Response of Departments to draft paragraphs and performance audits

The draft paragraphs and performance audit reports to be included in this report were forwarded to the Principal Secretaries/Secretaries of the concerned Departments between April 2018 and August 2018 with a request to send the responses within six weeks. The Government replies were received in respect of both the performance audits and 10 compliance audit paragraphs featured in this Report. Replies in respect of remaining two compliance audit paragraphs are yet to be received (January 2019).

1.7.3 Follow-up on Audit Report

According to instructions issued by the Finance Department, GoM in January 2001, Administrative Departments were required to furnish Explanatory Memoranda (EMs) duly verified by Audit to the Maharashtra Legislature Secretariat in respect of paragraphs included in the Audit Reports, within three months of presenting the Audit Reports to the State Legislature. The Administrative Departments, however, did not comply with these instructions. The status of outstanding EMs from 2012-13 to 2016-17 is indicated in **Table 1.2**.

Table 1.2: Status of submission of Explanatory Memoranda during 2012-17

Audit Report	Date of tabling the Report	Number of Paragraphs and Reviews	Number of EMs received	Balance
2012-13	24 December 2014	10	08	02
2013-14	10 April 2015	08	07	01
2014-15	13 April 2016	10	08	02
2015-16	07 April 2017	11	11	--
2016-17	28 March 2018	15	--	15
Total		54	34	20

The EMs in respect of five paragraphs relating to the period prior to 2012-13 were also outstanding. Department-wise details are shown in **Appendix 1.2**.

With a view to ensuring accountability of the Executive in respect of all the issues dealt with in the Audit Reports, the Public Accounts Committee (PAC) lays down in each case, the period within which Action Taken Notes (ATNs) on its recommendations should be sent by the Departments.

The PAC discussed 349 paragraphs pertaining to the Audit Reports for the years from 1985-86 to 2016-17 and made 349 recommendations of which, ATNs were pending on 281 recommendations as indicated in **Table 1.3**.

Table 1.3 : Position of outstanding ATNs on PAC recommendations

Year of Audit Report	PAC Report number	Year of PAC	Number of recommendations	Number of ATNs awaited
1985-86 to 2006-07	16, 18, 28, 24, 19	1994-95	179	117
	01, 02, 04, 06, 07, 08	1995-96		
	20, 24, 25, and 27	1997-98		
	03	2000-01		
	13	2003-04		
	08	2007-08		
	13	2008-09		
	14	2008-09		
	08	2010-11		
	09	2012-13		
	15	2008-09		
	18	2015-16		
2007-08	13	2012-13	03	03
2008-09	17	2012-13	21	21
2009-10	06	2015-16	15	14
2010-11	12	2015-16	01	--
	13	2015-16	01	--
2011-12	35	2017-18	09	09
2012-13	38	2017-18	33	32
2013-14	21	2015-16	49	47
	23	2015-16	38	38
2014-15	--	--	--	--
2015-16	--	--	--	--
2016-17	--	--	--	--
Total			349	281

The Department-wise position of PAC recommendations on which ATNs were awaited (December 2018) is indicated in **Appendix 1.3**.

CHAPTER - II

PERFORMANCE AUDITS

- 2.1 DISTRIBUTION OF AGRICULTURAL INPUTS TO FARMERS IN MAHARASHTRA**

- 2.2 MANAGEMENT OF TIGER RESERVES IN MAHARASHTRA**

CHAPTER II

Performance Audit

AGRICULTURE, ANIMAL HUSBANDRY, DAIRY DEVELOPMENT AND FISHERIES DEPARTMENT

2.1 PERFORMANCE AUDIT ON 'DISTRIBUTION OF AGRICULTURAL INPUTS TO FARMERS IN MAHARASHTRA'

Executive Summary

The agriculture sector in Maharashtra has always been a focal point of the economy. The cultivable area in the State is 234 lakh hectares, which forms 76 per cent of the total geographical area. 58 per cent of the population of the State is dependent on agriculture for their livelihood.

A performance audit on distribution of agricultural inputs to farmers in Maharashtra for the period 2013-18 revealed that:

- Baseline survey and feasibility studies to determine the status of crop production, its potential and demand were not conducted.
- There was shortfall in the supply of certified seeds as compared to the total requirement of seeds in the State.
- The seed production chain in the State was adversely affected resulting in shortage in availability of quality certified seeds to the farmers.
- The seed which was not notified for the State was distributed to the farmers resulting in lesser yields.
- Allowing re-registration of some companies, overlooking quality assurance aspects of Micro Irrigation systems manufactured/supplied by them, placing incorrect facts on record, resulted in extending undue financial benefit to them.
- Infrastructure for Deoxyribonucleic Acid (DNA) fingerprint laboratory created without inclusion of provisions of such tests and analysis in the Seed Act 1966 resulted in the laboratory remaining non-operational since its construction.
- The unspent balance funds from Government of India (GoI) share were credited to the receipt head of Government account instead of returning to GoI/reducing it from concerned major/minor heads or releasing for implementation of schemes as GoI share.
- There were several reported cases of mis-appropriation of money collected as farmers' contribution (*Lokwata*) by officials from beneficiaries, which was not paid to Maharashtra Agro-Industries Development Corporation (MAIDC) and Mahabeej. However, Department did not take stringent action against such erring officials resulting in huge pendency of amount payable to suppliers.

- There were instances of non-distribution of implements due to their becoming unserviceable over a period of time or not taken by farmers.
- There was delay in submitting the test results by the laboratories for agricultural inputs resulting in distribution of inferior quality of inputs to the farmers in case of failed samples.
- Due to shortage of staff, Taluka Agriculture Officers (TAOs) were facing difficulties in implementation of schemes at field level.

2.1.1 Introduction

The agriculture sector in Maharashtra has always been a focal point of the economy. The cultivable area in the State is 234 lakh hectares (ha), which forms 76 *per cent* of the total geographical area of 308 lakh hectares. As per the Agriculture Census (2010-11), Maharashtra is the second largest in the country in terms of operated area¹ (197.70 lakh ha) and third in terms of operational holdings² (1.37 crore) of which 78.6 *per cent* belonged to marginal and small farmers with land holding less than or equal to two hectares. Fifty eight *per cent* of the population of the State is dependent on agriculture for their livelihood.

Apart from various factors like seasonal rainfall and temperature, agricultural production and productivity depends on access of farmers to agricultural inputs, which includes quality seeds, fertilizers, plant protection materials (PPMs) including pesticides, insecticides and fungicides *etc.*, irrigation and various implements³. Availability of agricultural inputs in time, at economic price and at convenient location is a critical element for attaining production targets and effective utilization of quality inputs maximizes crop productivity.

Department of Agriculture (Department), Government of Maharashtra (GoM) and the Commissioner of Agriculture (CoA), Pune, is responsible for overall planning and management of agricultural inputs in the State. This includes timely providing of quality inputs and monitoring the adequacy thereof throughout the respective seasons. Various Centrally sponsored schemes (CSS), where inputs are procured and made available to the farmers on subsidized rates under demonstration and distribution programme are also implemented by the Department.

2.1.2 Organisational set-up

Department is headed by the Additional Chief Secretary (ACS) at Mantralaya, who exercises overall control through CoA, Pune. The CoA is assisted by six Directors of Agriculture, responsible for planning; inputs and quality control; extension and training; horticulture; Agriculture Technology

¹ Operated area includes both cultivated and uncultivated area, provided part of it is put to agricultural production during the reference period

² All land which is used wholly or partly for agricultural production and is operated as one technical unit by one person alone or with others without regard to the title, legal form, size or location

³ Implements like tractor, power tiller, rotavator, thresher, turbo seeder *etc.*

Management and soil conservation. There are eight⁴ Divisional Joint Directors of Agriculture (DJDA) at divisional level who are assisted by District Superintending Agriculture Officers (DSAOs) at district level. DSAOs are assisted by the Sub-divisional Agriculture Officers (SDAOs), Taluka Agriculture Officers (TAOs), Circle Agriculture Officers (CAOs), Supervisors, and Agriculture Assistants (AAs) at Sub-Division, taluka, circle and village levels respectively.

2.1.3 Audit Objectives

The objectives of the performance audit were to assess whether:

- Planning for agricultural inputs, their procurement and distribution was done with due diligence;
- Allocation and utilisation of funds was in accordance with sound financial practices;
- Distribution of agriculture inputs was timely and as per the identified needs and contributed to enhance agricultural productivity; and
- An effective mechanism for monitoring and evaluation was in place.

2.1.4 Audit Criteria

The audit criteria adopted for conducting the performance audit were drawn from:

- Schemes guidelines, Government Resolutions (GRs), instructions and circulars issued by the Government of India (GoI) and GoM;
- Bombay Financial Rules, 1959/ Maharashtra Treasury Rules, 1968;
- GoM Manual of office procedure for purchase of stores, 1978;
- Procedure prescribed for monitoring by CoA.

2.1.5 Scope and methodology of Audit

The performance audit focused on distribution of inputs to the farmers in Maharashtra including seeds, plant protection materials (PPMs), micro-irrigation and agriculture implements (excluding fertilizers)⁵. Since the Department does not maintain input-wise records and maintains only scheme-wise records of agricultural inputs, audit considered four Centrally sponsored schemes (CSSs) namely National Food Security Mission (NFSM), National Mission on oilseeds and oil palm (NMOOP), National Mission on Micro Irrigation/Pradhan Mantri Krishi Sinchan Yojna (NMMI/PMKSY), Sub-Mission on Agricultural Mechanisation (SMAM) and one State scheme (Micro Irrigation scheme for Marathwada Region) besides other schemes⁶, implemented during the period from 2013-14 to 2017-18. The average expenditure on these schemes formed around 50 *per cent* of total expenditure

⁴ Amravati, Aurangabad, Kolhapur, Latur, Nagpur, Nashik, Pune and Thane

⁵ Fertilizers were excluded from the scope of PA, as the GoM did not pay any subsidy thereon, thus no State funds were involved. An All India PA on “Urea Subsidy” had already been conducted covering the State of Maharashtra

⁶ Rashtriya Krishi Vikas Yojana (RKVY), Sub-Mission for Seed and Planting material (SMSP) and funds allocated by District Planning Committee (DPC) for soil testing

pertaining to schemes, involving agricultural inputs. Details are at **Appendix 2.1.1**.

Audit test checked the records relating to planning/ assessment, procurement, supply and distribution of agriculture inputs at Mantralaya; CoA, Pune; and all eight DJDAs. The records were also test-checked in eight⁷ selected DSAOs (one from each Division was selected to have representation of sample from each division) and 16⁸ TAOs (two from each selected district), selected on the basis of maximum expenditure incurred under the above schemes. Records of Maharashtra State Seed Corporation Limited (Mahabeej) at Akola and MAIDC at Mumbai were also scrutinized.

The audit objectives, methodology and scope of the performance audit were discussed with the Additional Chief Secretary, Department of Agriculture, GoM in an entry conference held on 25 January 2018 at Nagpur. As per suggestion made during the Entry Conference, Gadchiroli and its two talukas i.e. Gadchiroli and Armori were also covered in audit. The draft Report on PA was issued (August 2018) to the Department. The exit conference was conducted (December 2018) wherein all the audit findings were discussed. The replies of the Department and Secretary to the Government wherever received (November 2018/December 2018) have been incorporated in the report.

Audit Findings

The audit findings on preparation of State Annual Plan and shortfall in supply and production of seeds; allocation and utilization of funds; distribution of agriculture inputs; monitoring/evaluation and quality control are detailed in succeeding paragraphs.

2.1.6 Planning

Planning is a significant aspect for all the schemes to aim at enhancing the crop production and productivity. Our findings in planning for agriculture inputs are discussed in following paragraphs.

2.1.6.1 Preparation of State Annual Action Plans

As per Para 4.6 (NFSM), 5.2 (NMOOP), 6.3.1(SMAM) and 4.3 (Micro Irrigation) of the respective operational guidelines for implementation of CSS, the State Government was required to constitute a State Level Agency/State Level Standing Committee (SLSC⁹) for vetting and finalizing the State annual action plan (AAP) before its submission to Department of Agriculture and Cooperation (DAC), Government of India (GoI). The AAPs for respective CSSs were to be prepared by the respective Mission Director, designated by the State Government, based on the district AAP. The district

⁷ Ahmednagar, Aurangabad, Buldhana, Jalgaon, Nagpur, Osmanabad, Sangli and Thane

⁸ Aurangabad, Chalisgaon, Chikhali, Gangapur, Jamner, Kadegaon, Kalamb, Karjat, Katol, Kuhl, Murbad, Osmanabad, Sangamner, Shegaon, Tasgaon and Ulhasnagar

⁹ The SLSC have been constituted for all the focused schemes through separate Government Resolutions (GRs) issued by the GoM. The Additional Chief Secretary (Agriculture) is the Chairperson of SLSC for NFSM, NMOOP, MI and SMAM. Commissioner of Agriculture is Member Secretary of NFSM and NMOOP scheme. The Deputy Secretary (Agriculture) and Director (Inputs & Quality Control) is the member Secretary of MI and SMAM respectively

level agencies were required to prepare the AAP keeping in view priority and potential and submit the same to the State Mission Director. The State Government also had to conduct baseline surveys and feasibility studies in the area of operation (district, sub-district or a group of district) to determine the status of crop production, its potential and demand.

It was observed that no base line survey was conducted in any of selected CSSs during the review period. The AAP was prepared considering the data from Statistics Branch of the CoA in NFSM, NMOOP; demand of farmers from the previous year (SMAM) and actual programme implemented during past five years (NMMI/PMKSY) without actually determining crop potential and demand. For approved allocation of outlay (component-wise), AAP is submitted to GoI every year. During 2014-15 and 2015-16, AAP in respect of NMOOP was submitted to GoI directly without its approval by SLSC. However, its post facto approval was sought from SLSC.

The Government stated (December 2018) that the AAP was prepared on the basis of statistical information available with the department from taluka to State level. The AAP is approved by the Commissioner of Agriculture and Secretary of Agriculture. So, it is deemed to be approved from SLSC.

Reply was not convincing as the provisions of respective guidelines regarding baseline survey were not observed.

The reply of the Government also indicated that the AAP was prepared based on the statistical data/information available at different levels and approved by CoA. However, it does not confirm that the baseline survey for preparing AAP was being conducted by the State Government for implementing the centrally sponsored schemes.

2.1.6.2 Planning for Seeds

Seed is the basic input for sustainable agriculture. It is estimated¹⁰ that the direct contribution of quality seed alone to the total production is about 15-20 *per cent*, depending upon the crop. The contribution could be further raised up to 45 *per cent* with efficient management of other inputs. As per National Seed Policy 2002, to meet Nation's food security needs, it is important to make available to Indian farmers a wide range of seeds of superior quality in adequate quantity on a timely basis.

The Indian seed programme largely recognizes three generations of seed namely breeder seed, foundation seed and certified seed and provides adequate safeguards for quality assurance in the seed multiplication chain to maintain the purity of the variety as it flows from the breeder to the farmer.

Breeder seed¹¹ → Foundation seed¹² → Certified seed¹³ → Farmer

The production and distribution of certified seeds is governed by framework of Central Seed Act, 1966. State Agriculture Universities (SAUs)/Indian Council of Agriculture Research (ICAR) will have the primary responsibility

¹⁰ By the Government agencies as mentioned at the official site of GoM (krishi.maharashtra.gov.in) and GoI (seednet.gov.in)

¹¹ Breeder seed is the progeny of nucleus seed of a variety and is produced by the originating breeder or by a sponsored breeder

¹² Foundation seed is the progeny of breeder seed

¹³ Certified seed is the progeny of foundation seed

for production of breeder seed as per the requirement of the respective States. National Seed Plan (2005) envisaged that responsibility for production and distribution of foundation seed and certified seed has to be assumed by the State Seeds Corporation to the extent of 40 *per cent* of the requirement. The State Farm Corporation of India Limited (SFCI)/ National Seed Corporation of India (NSC) will be responsible for the 40 *per cent* and for production of remaining 20 *per cent*, private sector will be persuaded/ encouraged.

In Maharashtra, the certified seed production is organized through State Seed Corporation, Departmental Agricultural Farms, *etc.* The private parties also produce seeds which is called truthful¹⁴ seed. Seed requirement of the farmers was met by providing „Certified seeds and Truthful seeds’. In some cases, farmers use their own seeds for sowing.

The requirement of seeds is assessed by State Governments on the basis of the area sown under different crop varieties, area covered by hybrid and self-pollinated varieties as well as the seed replacement rate¹⁵ (SRR) achieved. The availability of seed is ascertained by the Department on the basis of the production of certified seed in government farms and Seed Corporation and Truthful seed produced by private parties.

We observed the following in planning for seeds:

➤ **Shortfall in supply of seeds**

Certified seeds

The Department collects information of total requirement and supply of certified seeds in the State from Mahabeej, National Seeds Corporation and other private companies/agencies¹⁶ which is shown in **Table 2.1.1**.

Table 2.1.1: Seed requirement and supplies for the State

(Quantity in quintals)						
Year	Seed requirement of the State	Total seeds supplied	Truthful seed supplied by private companies	Certified seed Supplied by Mahabeej & NSC	Percentage of supply of certified seed by Government agencies against the total requirement.	Excess/ Shortage (-)(3-2)
1	2	3	4	5	6	7
2013-14	2782104	3038065	1813934	1224131	44.00	255961
2014-15	2752844	2003155	1392661	610494	22.18	(-)749689
2015-16	2384018	2067753	1266818	800935	33.60	(-)316265
2016-17	2252420	2530429	1663101	867328	38.50	278009
2017-18	2465302	2360741	1405106	955635	38.76	(-)104561

Source: Information furnished by the Director, Input & Quality Control, Pune

It is evident that during 2014-15, 2015-16 and 2017-18 the total seed supplied was less than the requirement. However, the percentage of availability of certified seeds/quality seeds by the Government agencies was varying between 22.18 *per cent* and 44 *per cent* against envisaged

¹⁴ Truthful seed is the category of seed produced by cultivators, private seed companies and is sold under Truthful labels. Under the Seed Act, the seed producer and seed seller are responsible for quality of the seed

¹⁵ Seed Replacement Rate (SRR) is a ratio of change of seed quantity utilized for sowing of area for specific location, season and crop

¹⁶ Namely Ankur Seeds Pvt. Ltd., Nagpur; Navbharat Seeds Pvt. Ltd., Ahmedabad; Hissar Seeds Corporation, Faridabad and other companies

80 *per cent* of total requirement. Thus, the overall contribution of the certified seeds supplied by Government agencies over the years was not satisfactory and the farmers had to depend on the private companies/producers or their own seeds to meet out their demand for seeds.

Government accepted the facts and stated (November 2018) that shortfall in production of foundation as well as certified seeds was mainly associated with source seed availability and agro-climatic conditions.

Breeder Seeds

There was shortfall ranging between seven *per cent* and 25 *per cent* in allocation of breeder seeds by DAC, GoI against the seeds indented by Mahabeej. The shortfall in supply ranged between five *per cent* and 37 *per cent*, during the period 2013-14 to 2017-18, as indicated in **Table-2.1.2**:

Table 2.1.2: Information on breeder seed demanded and supplied

(Quantity in quintals)

Year	Indent for breeder seeds by Mahabeej	Allocation of breeder seeds by DAC	Per cent of allocation	Per cent of shortfall against allocation	Supply to Mahabeej	Per cent of supply against allocation	Per cent of shortfall in supply against allocation	Per cent of supply as compared to indent
2013-14	7771.7	5853.06	75.31	24.69	3837.89	65.57	34.43	49.38
2014-15	5373.28	4162.34	77.46	22.54	3935.39	94.55	5.45	73.24
2015-16	4942.37	4120.72	83.37	16.63	3601.05	87.39	12.61	72.86
2016-17	3202.25	2583.75	80.68	19.32	1679.04	64.98	35.02	52.43
2017-18	3424.71	3194.13	93.26	06.74	2007.62	62.85	37.15	58.62

Source: Information furnished by Mahabeej, Akola

Thus, such shortfalls in allocation and supply of breeder seeds resulted in lesser production of foundation and certified seeds. The shortage was met by downgrading the seed production programme from foundation stage (FS)-I to FS-II¹⁷ and certification stage (CS)-I to CS-II¹⁸ seeds in accordance with Seed Certification manual. In such case, compromise in genetic quality of certified seed cannot be ruled out. This led to shortage in supply of certified seeds to the farmers of the State which was met by Truthful seeds from private producers.

GoM stated (November 2018) that lesser allocation and supply of Breeder seed forced the Mahabeej to organize FS-I to FS-II and CS-I to CS-II seed production programme. It was further stated that the shortage had adversely affected the foundation and certified seed multiplication chain particularly in Soyabean crop.

➤ Shortfall in production of certified soyabean seeds

Mahabeej is the major producer and supplier of soyabean seeds in the State. Soyabean is one of the main crops of the State, which covers more than 25 *per cent* of cropped area in kharif season.

It was observed during past three years 2015-18 that there was acute shortage in production of soyabean seeds ranging between 15.51 *per cent* and 41.10 *per cent* as shown in **Table 2.1.3**.

¹⁷ FS-II seed is produced from FS-I seed

¹⁸ CS-II seed is produced from CS-I seed

Table 2.1.3: Shortage in production of soyabean seeds

Year	Total production of all varieties of soyabean seeds	Total requirement for marketing	Deficit in production (Per cent)	(Quantity in quintals)
				Corrective seed ¹⁹ production through other States (Andhra Pradesh, Gujarat, Madhya Pradesh)
2015-16	318754	541200	222446 (41.10)	53211
2016-17	439362	520000	80638 (15.51)	34113
2017-18	433390	550000	116610 (21.19)	71728
Total	1191506	1611200	419694	159052

Source: Information furnished by Mahabeej, Akola

The shortages were also met through corrective seed productions from other States.

It was also noticed that the reasons for shortfall in production of first generation foundation and certified seeds were less supply of Breeder seeds than the requirement and poor genetic purity (germination problems), sub-standard supply (blotches²⁰) as detailed in **Table 2.1.4** and **Table 2.1.5**.

Table 2.1.4: Statement showing indent, allocation and supply of breeder seed of Soyabean to Mahabeej (Quantity in quintals)

Year	Indent/Requirement	Allocation	Supply/Lift	Per cent of shortfall in supply to requirement
2013-14	4620	2084	2004	56.62
2014-15	3420	2267	2009	41.26
2015-16	3150	2472	2225	29.37
2016-17	2130	1583	889	58.26
2017-18	2325	2147	1880	19.14

Source: Information furnished by the Mahabeej, Akola

Table 2.1.5: Genetic Purity/Germination problems in breeder/foundation seeds (2014 to 2017)

Crop/ variety	Stage	Type of purity/germination issues
Soyabean JS-93-05 (2016-17)	BR	Observed high per cent of Purple Blotch ²¹ in seed
	FS	Poor Germination Complaint
Soyabean JS-93-05 (2014-15)	BR	More than 5-6 per cent off type ²² plants
Soyabean-MAUS-71 (2017)	BR	White flower plants
Soyabean-JS-93-05 (2017)		More than two per cent off type plants
Soyabean JS-95-60 (2017)	BR	More than two per cent off type plants Physical purity & germination complaints

Source: Information furnished by the Mahabeej, Akola

¹⁹ Corrective Seed production – The shortfall for soyabean seed met from other states

²⁰ Blotches in seeds indicates inferior quality of seed with germination problem

²¹ Purple blotch or purple Seed Stain or purple spot is caused by the fungus *Cercosporakichii*. This indicates inferior quality of seeds with germination problems

²² Offtype means any seed or plant not a part of the variety. It deviates in one or more characteristics from the variety as described and may include seeds or plants of other varieties; seed or plants resulting from cross-pollination by other kinds or varieties etc.



Higher per cent of purple blotches in JS-93-05 variety of breeder seed in kharif-2016

Thus, farmers of the State were provided with downgraded certified seeds for soyabean crops, however, there was lesser yield of soyabean crop from 1,214 kg/hectare in 2013-14 to 1,012 kg/hectare in 2017-18 and lowest 485 kg/hectare in 2015-16.

In reply, GoM/ Mahabeej stated (November/December 2018) that such production issue in case of soyabean seed was severe and shortfall in production thereof was due to lesser allocation and supply of breeder seed by the State Agriculture Universities (SAUs)/Indian Council of Agriculture Research (ICAR).

It is pertinent to mention that shortfall in oil seed production was discussed in Comptroller and Auditor General's Audit Report (Civil) for the year 1990-91 (Paragraph 3.1.7) and for the year 2003-04 (Paragraph 3.4.9). It is seen that the supply of soyabean seed has not shown significant improvement.

➤ **Non-maintenance of varietal replacement rate in respect of soyabean seed**

Seed varietal replacement rate²³ (VRR) needs to be maintained in order to increase production and productivity. Under NMOOP, oilseeds of less than 10 years old variety were admissible for seed production programme.

Test check of records at Mahabeej revealed that during 2013-14 to 2017-18, requirement for soyabean seeds of newer varieties (MAUS-158 and JS-9560) which were less than 10 years old ranged from four to 29 *per cent* whereas the requirement for older varieties JS-335 (24 years old), JS-9305 and MAUS-71 (16 years old) was ranging from 71 to 96 *per cent*. The actual supply of soyabean seeds of older varieties by Mahabeej was ranging from 74 to 99 *per cent*. Thus, the VRR was not maintained.

GoM accepted the facts and stated (November/December 2018) that old variety i.e. JS-335 is popular amongst the farmers due to its good yield. It was further stated that Mahabeej was getting lesser quantity of breeder seeds of new varieties and Mahabeej was taking all out efforts to maintain the availability of certified seeds to the farmers of the State despite various constraints.

Government should take efforts to increase awareness in farmers for use of new varieties which would give better crop yield.

²³ Seed varietal replacement rate (VRR) is the rate at which the replacement of varieties presently in cultivation is completed with new varieties. Varietal replacement is one of the most effective ways for increasing crop yields, production and productivity

2.1.6.3 Planning for Micro Irrigation System

Water is a scarce natural resource which can be utilised optimally for efficient and profitable farming through Micro Irrigation (MI) system i.e. drip and sprinkler systems. The GoM implements various schemes under which MI systems are provided to the beneficiaries at subsidized rate. Since the year 2012-13, these schemes²⁴ were being implemented and monitored via online web portal- 'mahaethibak.gov.in' which was developed by the National Informatics Centre (NIC).

➤ **Deprivation of benefit to SC/ST category farmers from MI system**

GoI releases the funds for MI schemes category-wise (i.e. 16 per cent for SC and eight per cent for ST). Thus, the funds so received by the GoM should be spent accordingly so that the farmers of each category get the benefit of subsidy.

It was noticed that against the grants of ₹ 187.46 crore released for SC and ST categories during the years 2013-18, ₹ 39.78 crore was only utilized and ₹ 113.74 crore was surrendered. Thus, utilization was only 21 per cent (**Appendix 2.1.2**). Hence, the benefit of subsidy under the MI schemes to SC and ST farmers was not fully reaped.

The Government stated that the applications received from SC/ST community was less as compared to grants received hence the funds could not be utilised. The GoM has already taken the steps to provide top-up subsidy under state scheme so that maximum SC/ST farmers could avail the benefit of subsidy.

➤ **Unwarranted benefit to companies by way of allowing re-registration and consequent unjust financial accommodation of ₹ 35.74 crore from public exchequer**

As per para 17.6 of NMMI guidelines relating to quality control of drip/sprinkler systems to be manufactured/supplied under the scheme, the crucial aspect of supply of micro irrigation system is the quality of the hardware delivered to the farmer. Frequent surveillance by inspection team of Agriculture officers and field officers was to be a regular feature under the scheme. They were to draw random samples periodically from the field, within a period of three years from the date of installation of the system which should be fully functional. In case of supply of poor quality material, the concerned manufacturer was to be issued warning for the first offence. In case of subsequent offences, the company was required to be deregistered and restricted from participating in the NMMI scheme throughout the country in addition to invoking of bank guarantee.

The samples of four²⁵ companies who manufactured and supplied drip/sprinkler system under the MI schemes failed during the period 2009-15 in quality tests²⁶ (reported during the years 2013-16) on more than two/three

²⁴ The scheme was subsequently implemented as NMMI from the 2010-11 to 2013-14. From 2014-15, NMMI was converted into On Farm Water Management (OFWM) as a sub-mission of 'National Mission for Sustainable Agriculture'. From 2015-16, the scheme is being implemented as part of PMKSY in the State

²⁵ M/s. EPC Industries Ltd., Nashik; M/s. Vishakha Irrigation Pvt. Ltd., Ahmedabad; M/s. Finolex Plasan Ltd., Pune and M/s. Tulsi Industries Pvt. Ltd., Jalgaon

²⁶ Emitting pipes, emitters and lateral did not conform to IS standards

occasions in successive years. The Director (Horticulture), on the basis of the recommendations (July 2016) of State Level Sanctioning Committee (SLSC), cancelled (July 2016) the registration of these companies for production/manufacture of MI systems/sets in the State and also debarred them from supply under any of the Government schemes for a period of 10 years. This was also informed (August 2016) to the GoI.

All the above companies approached the State's Agriculture Minister with a request to withdraw the orders of the Director (Horticulture) stating various reasons in which one of the companies mentioned that the Institute²⁷ was not authorized to do these tests, which was not correct as the Institute had conducted the tests during 2009-15. However, on the orders (August 2016) of the Agriculture Minister, tests were conducted through Central Institute of Plastics Engineering & Technology (CIPET), Aurangabad. It was seen that only seven samples of the same batch (of all the four companies) were available at the Regional level. These were sent to CIPET for re-testing. As per test report, five out of seven samples were certified as passed by CIPET. However, on the retest reports, Director (Horticulture) pointed out (October 2016) to GoM that two out of five components certified in re-test were of different batch. In spite of these facts, CoA recommended (February 2017) to GoM for reconsideration of order of deregistration. GoM ordered (April 2017) that considering the law of natural justice, the restriction of 10 years imposed on the four companies be limited to the year 2016-17 and granted approval for their further registration for the year 2017-18.

Thus, by allowing re-registration, such companies whose product samples failed persistently, on different occasions were extended unwarranted benefit of ₹ 35.74 crore, in the form of subsidy payment during 2017-18, from the public exchequer, besides share of 45 *per cent* (approx.) from the farmers towards the cost of such implement/sets and overlooking quality assurance of the implements supplied.

Government stated that the decision was taken by them with approval of State Level Sanctioning Committee. It was also stated that revised reply would be submitted shortly.

The reply was not convincing as SLSC itself recommended cancellation of registration of these companies and debarred them for 10 years for supply of MI systems under Government schemes.

2.1.6.4 Procurement of agricultural implements at rates higher than that in open market

For supply of agricultural implements under various CSSs, GoM appointed Maharashtra Agro-Industries Development Corporation Limited (MAIDC) as the sole supplier during 2014-15 to 2016-17. MAIDC fixed the rates and agencies for supply of implements with the approval of GoM. From 2017-18, the beneficiaries were allowed to procure the implements of any brand, as per their choice, from the approved list and the admissible subsidy would be available on procurement of agricultural implements.

²⁷ Vasant Dada Sugar Institute

Audit observed that the MAIDC fixed the price of implements after adding the margin of profit (three to five *per cent*) and the rates were intimated to GoM for approval. GoM approved (September 2013 and November 2015) the rates. MAIDC also included a condition to the supplier for penalty of ₹ 10 lakh, if it would notice that market rates were lower than the MAIDC rates. While including profit margin by MAIDC, it was, however, not ensured that the rate at which the implements would be supplied to farmers and should not exceed the market rate.

It was noticed that during 2015-16 and 2016-17, the rates of the seven²⁸ models of tractors sold by five²⁹ Companies in the open market were on lower side than the rates of corresponding models as fixed by the MAIDC. Thus, the rates of MAIDC were on higher side which varied between ₹ 9,852/- and ₹ 78,648/- for a tractor. Thus, by inclusion of profit margin by MAIDC, the agriculture implements provided to farmers were at price higher than the market rate which defeated the objective of the MAIDC to sell quality goods at a lower price than the market price.

It was further observed that GoM ordered (July 2015) an enquiry in a complaint case regarding irregularities in purchase of four row Broad Bed Furrow (BBF³⁰) planter in Amravati district. Enquiry report submitted (November 2015) by the Committee (formed for the purpose) mentioned that as against the rate of ₹ 43,000/- per BBF during 2013-14 and 2014-15, BBF was purchased at ₹ 48,348/- per BBF by the DSAO Amravati.

Government stated (October 2018) that the rates of tractors were fixed at MAIDC level and no evidence was noticed that the MAIDC's rates were higher than the open market. With regard to BBF planter, it was replied that the supplying agency was empowered to appoint L2 suppliers, thus, DSAO Amravati procured the BBF planter from L2. The Director, Inputs and Quality Control (I&QC) further stated (September 2018) that a show cause notice had been issued to DSAO Amravati and officer concerned and administrative action was under process regarding variation in technical specifications of BBF.

Reply was not acceptable as Audit noticed that the rates of some models of tractors supplied to farmers were on higher side than the rates of respective models in open market. Also, no penalty was imposed on suppliers for such violation. Further, L2 condition was not applicable for supply of BBF, as the rates of four row BBF planter were already available in the finalized rate list.

2.1.6.5 Deviations from operational guidelines under SMAM

As per Para 6.4.2 of the operational guidelines of SMAM (2014), the Department was required to utilize online application software for the process of identification and selection of beneficiary, processing of applications and disbursement of direct financial assistance to the beneficiary.

²⁸ EICHER-485OIB, JOHND-5045D, JOHND-5050D, JOHND-5050E, MAHINDRA SWARAJ 744 FEFX, SONALIKA INTER DI 47 RXSC and TAFE MF 7250 DI

²⁹ EICHER, JOHND, MAHINDRA SWARAJ, SONALIKA and TAFE

³⁰ BBF is an agricultural implement operated with the tractor, which makes bed and sows seeds simultaneously. It is suitable for sowing of crops like wheat, maize, peas *etc.*

Our scrutiny revealed that department has not developed the system of 'online application software' so far, thus the process of identification and processing of applications was being dealt with manually, though period of four years had elapsed from the issue of the SMAM's operational guidelines.

In reply, the Government stated that the online software regarding SMAM would be implemented in the ensuing year.

2.1.6.6 Lack of planning in creation of infrastructure for Deoxyribonucleic Acid (DNA) fingerprint test at Seed Testing Laboratories

As per GoI guidelines (June 2006) for strengthening of Seed Testing Laboratories (STLs), DNA fingerprint³¹ seed testing facility in addition to existing testing facilities was to be created in STLs.

In order to strengthen the existing testing laboratories and to obtain the membership of International Seed Testing Association (ISTA), CoA sanctioned (2009-11) ₹ 4.34 crore to three³² STLs in the State. It was observed that despite expenditure of ₹ 4.34 crore incurred by these STLs on construction/electrification and equipments/instruments, DNA fingerprint testing could not be conducted due to non-inclusion of provisions of such tests and analysis in Seed Act 1966. As a result, the facilities remained inoperative even after creation of infrastructure for DNA fingerprint at all the three STLs. Thus, the objective of obtaining ISTA accreditation could not be achieved.



DNA fingerprint lab, Nagpur

DNA fingerprint lab, Parbhani

GoM while accepting the facts stated (October 2018) that DNA fingerprinting provision for genetic purity tests under the Seed Act, 1966 was under consideration at GoI level.

2.1.7 Allocation and utilisation of funds

2.1.7.1 Funds released, expenditure incurred and savings/surrender thereof

Audit compiled the details of funds released, expenditure incurred, and amount surrendered under various schemes relating to agricultural inputs from the statement of final modified grant (FMG) for the years 2013-14 to 2017-18, which is given in **Table 2.1.6**.

³¹ Deoxyribonucleic acid (DNA); Method of isolating and identifying variable elements within the base pair sequence of DNA. The DNA fingerprint technology based method determines the hybridity of seeds and admixture of noxious seeds

³² Nagpur, Parbhani and Pune

Table 2.1.6: Statement of release and expenditure of funds

(₹ in crore)

Year	Funds released	Expenditure incurred	Savings surrendered	Percentage of amount surrendered
2013-14	1318.66	1014.16	304.50	23.09
2014-15	1673.56	1374.03	299.53	17.90
2015-16	1237.04	1037.56	199.48	16.13
2016-17	1154.88	858.80	296.08	25.64
2017-18	1640.27	1197.27	443.00	27.01
Total	7024.41	5481.82	1542.59	21.96

Source: Information furnished by Mantralaya, Mumbai

From the above details, it could be seen that there was under-utilisation of funds ranging between 16 and 27 per cent of the funds released. During the years 2016-17 and 2017-18, such under-utilization of funds was more than 25 per cent. An amount of ₹ 1,542.59 crore was surrendered during 2013-18. In seven³³ selected DSAOs, out of ₹ 828.14 crore released during 2013-18, an amount of ₹ 109.99 crore (13.28 per cent) was surrendered.

In case of four³⁴ focused CSSs, funds of ₹ 3,459.40 crore were provided by GoI and GoM during 2013-18, of which expenditure incurred was ₹ 2,709.33 crore and ₹ 750.07 crore (21.68 per cent) remained unspent.

The Government stated (December 2018) that the expenditure incurred on inputs involved in various schemes would be furnished to audit. However, no reasons were furnished for under utilisation of funds.

2.1.7.2 Delay in release of funds under various CSS by GoM

Upto 2013-14, the GoI provided 100 per cent grants to GoM for CSSs which was directly credited to bank accounts opened by the implementing agencies i.e. DSAOs for onward transmission to TAOs and ultimately to the beneficiaries. From 2014-15 onwards, the funding pattern was changed and the funds requirement was shared by the GoI and GoM in the proportion³⁵ as decided by GoI. Thus, the GoI provided its share of contribution to GoM, which was made available to CoA through budget distribution system (BDS), alongwith State share.

It was noticed that there were instances of administrative delay in release of funds by the GoM, after receipt of GoI's share. The delay ranged from three days to 308 days, which further delayed release of funds to the DSAOs as mentioned in **Table 2.1.7**.

³³ Buldhana, Gadchiroli, Jalgon, Nagpur, Osmanabad, Sangli and Thane

³⁴ NFSM, NMOOP, NMMI/PMKSY and SMAM

³⁵ The ratio of funds between GoI and GoM was NFSM: 100:00 (2013-15), 60:40 (2015-18), NMOOP: 60:40 (2014-18), MI: 80:20 (2013-15), 60:40 (2015-18), SMAM: 50:50 (2015-16), 60:40 (2015-18)

Table 2.1.7: Delayed release of funds by the GoM

Name of Scheme	(Number of days)				
	2014-15	2015-16	2016-17	2017-18	Average delay range for 2014-18
Delay in release of State share after receipt of GoI share in days					
NFSM	51-138	14-162	15-223	20-90	14-223
NMOOP	32-100	50-88	32-272	19-105	19-272
SMAM	113-174	49-91	91-232	12-94	12-232
MI	30-39	41-56	15-308	03-93	03-308
RKVY	-	-	-	12-136	12-136

Source: Information furnished by the Commissioner of Agriculture, Pune

The Government stated that the delay was mainly due to delayed approval and release of grants from GoI and for complying with budgetary process to provide additional budget. However, detailed scrutiny in the matter would be done. Thus, the delay in releasing the grants to CoA after receipt of GoI's grants had cascading effect and delayed release of funds to the farmers as pointed out in **Paragraph 2.1.8.2 (i)**.

2.1.7.3 Submission of incorrect utilization certificates

GoI releases grants to State Governments under various CSS. The State Government was required to furnish utilization certificates (UCs) to GoI certifying that the funds were utilized for the purpose for which they were released.

Out of nine test checked DSAOs, only three³⁶ DSAOs had furnished the information which revealed that out of ₹ 192.16 crore received during 2013-17, UCs for ₹ 169.84 crore were furnished leaving balance of ₹ 22.32 crore. It was also noticed that the balance lying unutilized on 31 March 2017 was ₹ 12.18 crore as against ₹ 22.32 crore. This indicated that the UCs submitted by above three DSAOs to GoM were incorrect. Information was not furnished by other six³⁷ DSAOs.

Thus, the consolidated statement of UCs prepared by CoA and submitted to GoI through GoM on the basis of UCs received from field DSAOs was incorrect. There was no mechanism noticed within CoA to verify the correctness of UCs submitted by DSAOs.

Government accepted the facts and stated that as Public Financial Management System (PFMS) was not available during 2013-14 to 2017-18, the correctness of UCs could not be verified. Now, from the year 2018-19, this would be monitored through PFMS.

2.1.7.4 Unspent balance of ₹ 269.98 crore credited into Government Account

GoM instructed (January 2018) the CoA to close the savings bank accounts opened by DSAOs for all the CSSs as these accounts were not authorised.

Accordingly, balance amount of ₹ 269.98³⁸ crore pertaining to various CSSs, available in the savings bank accounts with the 34 DSAOs since 2012-13 and

³⁶ Ahmednagar, Buldhana and Jalgaon

³⁷ Aurangabd, Gadchiroli, Nagpur, Osmanabad, Sangli and Thane

³⁸ ₹ 269.38 crore pertains to four focused CSSs and ₹ 0.60 crore to other CSS

at Directorate level was credited (March 2018) into the receipt head (800-other receipts) of Government Account. The action of crediting of balances of savings account to receipt head was irregular, as the balance pertaining to CSS, which includes GoI share and the GoM share, was treated as revenue receipt of the government in the respective years. This was contrary to the accounting procedure laid down in paragraph 3.10 of General Directions of List of Major and Minor Heads which states that refund of unspent balances pertaining to previous years shall be recorded under distinct minor head reduction-unspent balances (minor head 911) below the concerned Major/Minor head. The same should have been either refunded to GoI or would have been adjusted against the future releases of GoI.

The Government stated that the amount was credited to receipt head on the advice of the Finance Department, GoM.

The action of the Department was irregular in terms of accounting procedures prescribed.

2.1.7.5 Pendency of beneficiary contribution payable to MAIDC

The accounting of beneficiary contribution as prescribed by the CoA (March 2012/ May 2013) stated that the amount so received from the beneficiary in cash or DD by the officials should be deposited immediately with the cashier and the Government receipt for the same should be issued to the beneficiary. Cashier should take entry in the cash book on same day and credit the amount to the bank account of the DDO, which would be paid to the supplier, as early as possible. The cases of delayed or non-remittance of beneficiary contribution were to be treated as mis-appropriation and the head of the office should propose administrative action against the concerned official, as per rule.

It was observed that an amount of ₹ 22.25 crore payable to MAIDC on account of beneficiary contribution was outstanding (March 2018) from various DSAOs in the State. Similarly, Mahabeej stated that beneficiary contribution amounting to ₹ 1.05 crore towards supply of seed was outstanding.

During scrutiny of stock and distribution register in test checked 16 TAOs, it was observed that the instructions/procedure as mentioned above was not adhered to. Amount collected as beneficiary contribution was neither recorded in the distribution register or any other records by the Agriculture Assistants (AAs) nor accounted for in cash book of the TAOs. Also, no receipts were issued to the farmers in token of having received the amount of beneficiary contribution. Instead, AAs settled the supplier's dues of beneficiary contribution or part thereof directly as per their convenience. No records were available at DSAOs to verify the amount of beneficiary contribution payable to MAIDC and Mahabeej. In such case the amount of beneficiary contribution actually collected and paid to MAIDC or Mahabeej could not be ascertained. The possibility of mis-appropriation of beneficiary contribution collected cannot be ruled out as the implements were to be distributed only after recovery of beneficiary contribution.

The cases below are of temporary mis-appropriation noticed by Department where action was pending; In seven³⁹ test checked DSAOs, beneficiary contribution amounting to ₹ 6.11 crore⁴⁰ was outstanding which pertains to amount collected at TAOs level but not transferred to the MAIDC.

- In DSAO Osmanabad, beneficiary contribution of ₹ 32.61 lakh collected during 2012-17 from the farmers was not transferred to MAIDC and retained by the officials of the respective TAOs un-authorisedly as shown in **Appendix 2.1.3**, who could not be identified in absence of proper documentation. In reply, DSAO, Osmanabad stated (June 2018) that the recovery would be effected from the concerned officials and would be remitted to MAIDC.
- In DJDA Nagpur, mis-appropriation of ₹ 28.37 lakh (₹ 22.75 lakh by the retired TAO and ₹ 5.62 lakh by the retired CAO) from beneficiary contribution amount was reported under DSAO Bhandara. Amount of ₹ 5.62 lakh was recovered from concerned CAO (July 2015) and Departmental enquiry against CAO was proposed to CoA which was pending (December 2018).
- In TAO, Kadegaon, ₹ 4.91 lakh was collected during 2011-14 by an AA as beneficiary contribution but the amount was not paid to TAO for further remittances to MAIDC. In reply, it was stated that an amount of ₹ 2.46 lakh had been recovered (May 2018) from the concerned official and ₹ 2.45 lakh would be recovered and paid to MAIDC.

Thus, the Department did not take appropriate action like departmental enquiry against such officials, instead, in some cases, amount was being recovered in installments from the salary.

The GoM accepted the facts and stated (October 2018) that the MAIDC had been requested by CoA for joint inspection along with DSAOs to verify actual outstanding amount and efforts are being made for recovery of the amount of *lok wata*⁴¹. The Government stated that penal action was being proposed in respect of the concerned officials.

2.1.7.6 Non-traceable fund of ₹ 15 lakh for more than 14 years

GoI, Ministry of Agriculture released (February 2004) an amount of ₹ 15 lakh to GoM for strengthening of State Seed Certification Agencies (SCA)/STLs under the scheme „National Seeds Research and Training Centre’ and asked to submit the UC.

It was observed from records⁴² of CoA that UC was not submitted to GoI despite lapse of more than 14 years and an amount of ₹ 15 lakh was untraceable and pending with the State. Also, the expenditure incurred, if any could not be ascertained.

³⁹ Ahmednagar, Aurangabad, Buldhana, Jalgaon, Osmanabad, Sangli and Thane

⁴⁰ The amount was obtained from suppliers viz. MAIDC and Mahabeej

⁴¹ Farmers’ share of contribution towards the cost of agricultural input is the *lok wata*

⁴² Correspondences between GoI, GoM, CoA and Mahabeej – letters dated 29.01.2008, 5.9.2009, 22.11.2010 and 31.01.2011

The GoM accepted the facts and stated (October 2018) that CoA had been directed to take follow up action in this regard and to submit detailed report. The Secretary also assured to look into the matter to trace the funds.

2.1.8 Distribution of Agriculture Inputs- Demonstration programme for seeds

2.1.8.1 Distribution of Seeds

i) Demonstration programme is undertaken to make the farmers aware about improved practices, new technologies and to promote new varieties of seeds which would give better yield over old varieties. Demonstration programme for rice, wheat and pulses was undertaken under NFSM. The audit findings noticed in undertaking demonstration programme are discussed below.

➤ Distribution of old variety of seeds for demonstration programmes

As per the guidelines of National Food Security Mission (Pulses), seed variety of lesser than 10 years from its release order date was admissible to be supplied for demonstration programmes, so as to promote the new variety and get better yields and productivity. Subsidy was thus, admissible for such seeds only.

In two⁴³ selected districts, against target of 9,500 hectares for crop demonstration programme under NFSM for *urad* and *harbhara* crops during 2013-15, seed varieties (TAU-1 for *urad* and Vijay for *harbhara*) were supplied by the Mahabeej/NSC to the farmers. The TAU-1 variety for *urad* was 28-29 years old whereas Vijay variety for *harbhara* was 19 years old (**Appendix 2.1.4**).

In reply, DSAO Jalgaon and Osmanabad stated (March 2018 and June 2018) that the Mahabeej had supplied the seed varieties older than 10 years.

Thus, the Department, instead of rejecting the old varieties, distributed it to farmers which defeated the objectives of promoting new variety through demonstration programme, besides an expenditure of ₹ 89.91 lakh was incurred towards payment of subsidy to the suppliers for these old varieties.

➤ Payment of production subsidy of ₹ 15.45 lakh for production of old variety of seeds

In Jalgaon district, it was observed that production subsidy of ₹ 15.45 lakh was paid for inadmissible varieties (more than 10 years old) to the growers as shown in **Table 2.1.8**.

Table 2.1.8: Details of Production subsidy paid

Sr. No.	Year	Description of seed i.e. brand	Year of release	Quantity in quintals	Rate in ₹/quintals	Amount in ₹
1	2016-17	Urad TAU-1	1985	466.60	2500	1166500
2	2012-13	Vijay	1994	284.70	1000	284700
3	2013-14	Vijay	1994	93.70	1000	93700
Total						1544900

Source: Information furnished by the DSAO, Jalgaon

⁴³ Jalgaon and Osmanabad

The DSAO, Jalgaon stated that TAU-1 was a very prominent variety and growers demand these varieties only, thus the production programme was taken up by NSC. The Government stated (October 2018) that GoI had given relaxation to TAU-1 variety of black gram (*Urad*) since there was no alternative to this variety.

Reply was not convincing as relaxation for TAU-I was given for the year 2017-18, Further, no relaxation was granted for Vijay variety of *harbhara*. Also, the Department could not provide the option of new variety to the farmers which defeated the objectives of promoting the newer variety of seeds.

➤ **Excess expenditure due to distribution of soyabean seeds in excess of norms under demonstration programmes**

As per norms (2017) of State Agriculture Universities (SAUs), 70 to 75 kg of soyabean seeds per hectare had been prescribed for sowing of all varieties in the State.

Audit observed that during 2017-18 under demonstration programme, as against the above norms, 100 kg per hectare of soyabean seed (JS-9560) was distributed by DSAO, Nagpur whereas 65 kg per hectare was distributed in five⁴⁴ districts by concerned DSAOs (under DJDA, Latur). Thus, there was no uniformity in distribution of seeds for demonstration programme in various districts. In Nagpur, seed of 627.50 quintals was distributed in excess of norms and this resulted in excess expenditure of ₹ 36.40 lakh incurred on cost of seed.

The GoM stated (October 2018) that the justification for excess use had been sought from concerned authorities.

➤ **Shortfall in achievement of target for demonstration programme**

In Nagpur district, targets of 50 hectare and 110 hectares under NFSM Frontline Demonstration Inter Cropping (FDIC) and High Density Planting System (HDPS) for cotton crop were fixed by the CoA for the year 2016-17. Audit observed that targets for FDIC could not be achieved, whereas targets for HDPS could be achieved for 52.40 hectares (48 *per cent*) as targets were fixed without ascertaining the demands from DSAOs and were not included in AAP. It was observed that out of financial targets of ₹ 13.40 lakh, CoA released ₹ 4.40 lakh and district could utilize only ₹ 1.76 lakh and ₹ 2.64 lakh was surrendered.

The Government stated that shortfall in achievement in demonstration programme was due to shortage of funds. Reply was not tenable as there was surrender of fund every year.

➤ **Lack of planning in conducting demonstration programme of seeds**

As per serial number 19 of GoI notification (March 2011), the seed variety Pearl Miller Bajra (RHB-177) was specified for three States viz. Rajasthan, Haryana and Gujarat. As per evaluation report submitted (November 2016) by Rashtriya Krishi Sansodhan Prkalp, Aurangabad, this seed was suitable

⁴⁴ Hingoli, Latur, Nanded, Osmanabad and Parbhani

to the climatic condition where rainfall was less than 200 mm. Further, as per area of adoption for newly released variety of seeds prescribed by NSC, Maize Seed Variety (HQPM-1) was not suitable for the Maharashtra State.

Audit observed that the GoM implemented NFSM Cereals and Pulses programme in State and Bajra (RHB-177) was distributed to farmers in the state during 2015-16 to 2016-17. Department planned and conducted demonstration programme of seed varieties for Bajra (RHB-177) and Maize (HQPM-1) in six DSAOs⁴⁵ during 2015-16 and 2016-17. However, the rainfall during 2015-16 and 2016-17 was more than 200 mm in these districts and these seed varieties were not suitable for the State which resulted in lesser yield of crops. Due to the decision of Department to conduct demonstration of unsuitable seeds according to climatic conditions, expected yield could not be achieved. Besides, expenditure on subsidy incurred on procurement of above seed varieties for ₹ 186.87 lakh did not yield the intended results.

GoM accepted the fact of lesser crop yields and stated (November 2018) that though RBH-177 variety of Bajra seed was not suitable for the State, GoI had recommended it for the State under contingency plan during 2014 and 2015. It further stated that taking into consideration the lesser crop yields, GoM has now decided to accept varieties exclusively recommended for the State. Reply for Maize variety (HQPM-1) was awaited (December 2018).

Government stated that the complaints were mainly received from Aurangabad district and once the issue came to notice, the payment to the supplier was stopped.

ii) Production programme of seed

As per sub-para-9.4 of the operational guidelines of NFSM (April 2011/June 2015), financial assistance of ₹ 1,000/- and ₹ 2,500/- per quintal was admissible as production subsidy to the growers (farmers) for production of foundation and certified seeds of newer variety of seed which was less than 10 years old. The production subsidy was to be paid by CoA through Mahabeej to the farmers involved in growing foundation and certified seeds. Audit noticed cases of non-payment of subsidy as mentioned below.

➤ Non-payment of production subsidy for foundation and certified seeds

Audit observed that as against ₹ 53.66 crore payable as production subsidy to 4,680 growers who produced foundation and certified seeds in the year 2016-17, Mahabeej had paid ₹ 27.71 crore, thus payment of ₹ 25.95 crore was not made under NFSM and NMOOP.

Mahabeej accepted (April 2018) the facts and stated that subsidy amount had not been received from the CoA under the CSS. GoM/CoA stated (October 2018) that due to short receipt of funds than the approved outlay from GoI, the amount could not be paid. However, the demand had been made to GoI for release of funds.

⁴⁵ Ahmednagar, Aurangabad, Beed, Osmanabad, Sangli and Satara

iii) Seed distribution programme

Seed is one of the most critical inputs for enhancing the productivity of crops. The mission provides financial assistance for production of seed of hybrid rice as well as breeder, foundation and certified seeds of improved varieties of pulses. The financial assistance for distribution of seeds to promote improved varieties of rice, wheat, cereals and pulses was provided under NFSM and NMOOP. We observed the following;

➤ Shortfall in achievement under seed distribution programme

In six⁴⁶ out of nine test checked DSAOs, Audit observed shortfalls in implementation of distribution programme of seeds. Against target of 2,38,998 quintals of seeds (it includes pulses, cereals and oilseeds) to be supplied during 2013-18, only 1,33,721 quintals was supplied resulting in shortfall of 1,05,277 quintals.

DSAO, Aurangabad and Buldhana accepted the facts and stated (March/February 2018) that shortfalls were due to lack of demand for seeds because of less rainfall and delayed supply of seeds by Mahabeej and NSC.

Government stated that shortfall was due to delayed supply of seed and lesser demand by the farmers.

2.1.8.2 Distribution of implements

i) Delay of benefits of subsidy under NMMI

As per Para 5.2 of the Guidelines (2015-16) of MI Scheme issued by State, farmers were required to follow the procedure prescribed i.e. farmers should make registration online in MI portal providing details of bank account, Aadhar number, 7/12⁴⁷ abstracts *etc.* After online submission of proposals, pre-sanctions would be given on the basis of availability of grants. Thereafter, farmers should procure the MI sets from authorized dealers/distributors and get it installed within one month from the date of pre-sanction. Farmer should upload the invoice on the web portal and the subsidy proposals should be submitted to the TAOs for further processing. After receiving proposals of farmers, TAO should get spot verification done through CAOs and scrutiny report should be uploaded in web portal. After spot verification, the proposal would be transmitted to the SDAO for calculation of subsidy amount payable. Finally, the subsidy amount payable was to be credited into the farmers' bank account by DSAO. The subsidy should be credited into the farmers' bank account within one month from the date of installation. The cases of non-release or delay in release of subsidy under MI scheme are discussed below:

⁴⁶ Aurangabad, Buldhana, Gadchiroli, Nagpur, Osmanabad and Sangli

⁴⁷ The 7/12 document is an extract from land register of any district in Maharashtra, which gives complete information about a particular piece of land which contains important details such as survey number, area, date from which current owner's name is registered. The 8A abstract is a register of land holding which indicates the entire holding of land of particular account holder in that village

➤ **Delay in release of subsidy under MI scheme**

In five⁴⁸ selected districts, audit observed instances of delayed release and payment of subsidy ranging from one to four years to 60,420 farmers (44.04 per cent) out of 1,37,181 during the years 2013-18, as against 30 days.

GoM accepted the facts and stated (October 2018) that delay in release of funds by it caused further delay in payment of subsidy.

The delayed release of funds as pointed out in **Paragraph 2.1.7.2** was one of the reasons that farmers could not get subsidy in time.

➤ **Excess payment of subsidy**

Guidelines of MI schemes prescribed that the benefits of subsidy should be restricted to maximum of five hectares or actual land holding, whichever was less, in case of the individual beneficiary. As per the process prescribed in the guidelines, the Agriculture Assistant, Supervisor, CAOs and TAOs should ensure that farmers who have applied for the benefit of scheme had not availed such benefit in earlier years. Undertaking to that effect was to be taken from the farmers. However, another condition stipulated that farmers who availed the benefit in earlier years would also be eligible provided the benefit should not exceed more than five hectares. From 2012-13, for implementation of MI scheme Computerised System (Online *E-Thibak*) was introduced. To avail the benefit it was mandatory for the farmer to apply online using “*E-Thibak*” on Agriculture Department’s website.

During test check of the data and information furnished (in soft form) by the five⁴⁹ DSAOs for the years 2012-13 to 2017-18, it was noticed that 288 beneficiaries were given the benefit of subsidy for more than their land holding as per 7/12 and 8A records. As against the total landholding of 395.46 hectare, the benefit was given for 567.43 hectare, which resulted in excess payment of subsidy of ₹ 58.23 lakh (calculated proportionately) to such beneficiaries. Data in respect of Nagpur and Aurangabad districts was not received and no such cases were noticed in Gadchiroli and Thane districts. Thus, failure of field level officers (CAOs and TAOs) to scrutinize the online applications of farmers scrupulously, resulted in excess payment of subsidy.

In DSAO, Ahmadnagar, benefit was given beyond five hectares in one case. Such instances indicated flaws in implementation and monitoring at TAO /SDAO and DSAO levels.

In reply, the Government stated that the issue would be verified and necessary action would be taken accordingly.

ii) Implements lying undisbursed at Taluka level

In test checked 12⁵⁰TAOs, 2,027 implements costing ₹ 103.44 lakh were pending for distribution to the farmers (**Appendix 2.1.5**). However, subsidy of ₹ 49.41 lakh was already paid to MAIDC even though the implements were not distributed to farmers.

⁴⁸ Buldhana, Jalgaon, Nagpur, Osmanabad and Sangli

⁴⁹ Ahmednagar (13), Buldhana (131), Jalgaon (11), Osmanabad (47) and Sangli (86)

⁵⁰ Armori, Chalisgaon, Chikhli, Gadchiroli, Gangapur, Jamner, Kadegaon, Kalamb, Kuhi, Osmanabad, Shegaon and Tasgaon

Audit observed that implements supplied by MAIDC on the orders issued by DSAOs could not be distributed as they were not taken by farmers. In three⁵¹ TAOs, 936 implements costing ₹ 17.01 lakh out of 2027 implements mentioned above, were not found in the stock of the TAOs. The undistributed implements had become unserviceable as they were lying in stock over a period ranging from two to eight years.

Thus, implements worth ₹ 86.43 lakh were lying unused and implements costing ₹ 17.01 lakh were missing, thereby expenditure incurred thereon proved to be unfruitful.

GoM accepted the facts and stated (October 2018) that while placing order only targets were considered irrespective of demand which resulted in excess supply that led to implements lying undisbursed. However, policy decision would be taken regarding disposal of unserviceable implements. No reply for missing implements costing ₹ 17.01 lakh was furnished.

2.1.8.3 Distribution of Micro-nutrients and Plant Protection Materials:

➤ Delay in distribution of PPMs/Micro-nutrients by TAOs

As per guidelines of NFSM, the micro nutrients were to be supplied to the farmers before 25 May for kharif season and before 31 August for rabi season every year. Micro-nutrients are used for preparing soil before sowing the crop, thus, they should be distributed well in advance.

In test checked ten⁵² TAOs, it was noticed that various micro nutrients (Gypsum, Rhizobium, Azatobactor, Zinc Sulphate, Ferrous Sulphate, PSB and Carbondizium) were distributed to farmers after 25 May for kharif season and 31 August for rabi season during 2013-18. The delay ranged between three and 227 days. In TAO Chalisgaon, entry of 30 MT of phospho gypsum received was not found in stock register, thus its distribution to the farmers could not be ascertained (**Appendix 2.1.6**). Delayed supply of the micronutrients defeated the scheme objective of timely distribution of inputs, as the department did not adhere to the time frame for supply of micro-nutrients.

In Nagpur district, DSAO placed supply orders to MAIDC, Nagpur in August 2016 for supply of 2,880 litres (pack of 250 ml) of Chlorpyrifos required for 11,520 hectares for kharif season. The supply order was placed with delay of four months. It was further observed that MAIDC expressed (September 2016) its inability to supply the requisitioned PPM in the pack of 250 ml and requested for revised orders to supply the above quantity in pack of 500 ml. Consequently, the DSAO cancelled (September 2016) the supply orders, as it was too late for the season to distribute the PPM to the farmers. Thus, due to failure on the part of the DSAO to place the order in time, PPMs for 11,520 hectares of crops could not be supplied to the farmers.

In reply, the Government stated that the audit observations would be looked into.

⁵¹ Chalisgaon, Kalamb and Osmanabad

⁵² Armori, Aurangabad, Chalisgaon, Chikhli, Gadchiroli, Gangapur, Karjat, Katol, Sangamner and Shegaon

2.1.8.4 Other irregularities:

i) Unfruitful expenditure on purchase of soil testing (*mridaparikshak*) mini lab kits

DSAO, Jalgaon placed (October 2016) supply order for 131 '*Mridaparikshak* Minilab (Model MU2)' with one reagent kit to National Agriculture Co-operative Marketing Federation of India Ltd., New Delhi for ₹ 1.25 crore, which were supplied and delivered (November 2016) to 14 TAOs in Jalgaon district.

Test check of records in two selected TAOs (Jamner and Chalisgaon) revealed that out of 18 minilabs supplied to them (nine each), only five could be distributed (Jamner- four and Chalisgaon-one) and remaining 13 minilabs were lying idle, undistributed and unutilized for more than 23 months, thus defeating the very purpose of such purchase and expenditure of ₹ 12.33 lakh incurred thereon proved to be unfruitful.



Actual photographs of Minilab lying Idle

In reply, the TAO intimated (March 2018) that the chemicals used for soil testing were spoiled. It was also stated that such supplies were made by the DSAO without obtaining any requirement and farmers were not interested in purchase of such equipments at subsidized rate. DSAO, Jalgaon (April 2018) intimated that all minilabs, except above 13 numbers, supplied to TAOs were distributed to the farmers.

Government stated that minilabs were distributed to farmers. Reply was not acceptable as the minilabs were distributed to the farmers with reagent kits which were not usable, thus defeating the objectives.

ii) Delay in taking necessary action for effective use of web portal maintained for MI scheme

As stated in **Paragraph 2.1.8.2**, web portal "*E-Thibak*" on Agriculture Department's website (<http://mahaethibak.gov.in>) for implementation of MI scheme was introduced from 2012-13. It was envisaged that there will be direct link from farmers to Director (Horticulture) level through this system. Audit of web portal revealed that:

➤ There were no fields for reporting reasons for rejection of proposals, date of rejection, stage-wise rejection of proposals (i.e. at TAO, SDAO and DSAO level) *etc.* This information was missing and necessitated the maintenance of offline records to get such information. Thus, the reasons for rejection of 62,007 pre-sanctioned cases (including 20,591 cases of nine⁵³ test checked DSAOs) out of 9,38,401 during the years 2013-18, were not ascertainable from the web portal.

⁵³ Ahmednagar, Aurangabad, Buldhana, Gadchiroli, Jalgaon, Nagpur, Osmanabad, Sangli and Thane

➤ There were no fields in portal for making entry regarding percentage check prescribed in MI scheme guidelines for spot verification at each level, except AA and AS. Further, such percentage check of AA/AS also was not reflected in farmers' details report generated. Thus, the prescribed checks exercised by the respective officers could not be ascertained.

➤ From 2017-18 onwards, there was no system to correct the wrong entries made by farmers, or to generate the deficiency reports. Audit noticed that in four⁵⁴ of 18 test checked TAOs, 899 out of 16,668 proposals could not be processed during 2017-18 due to incorrect entries made by the farmers.

Government stated that omissions in the software were being addressed. Further, unique software was being developed with other Government agency. Mahaonline was developing the software to on-board the scheme on Direct Benefit Transfer Portal of State Government.

2.1.9 Monitoring/ Evaluation and quality control

2.1.9.1 Mechanism to monitor the receipt and distribution of inputs

➤ Records of agricultural inputs were maintained scheme-wise and not input-wise by the TAOs. Test check of records in eighteen⁵⁵ TAOs relating to inputs received and distributed by the TAO or CAO or AAs revealed numerous omissions such as non-maintenance of proper records for receipt and distribution of various inputs supplied and non-accounting of inputs received from the suppliers under various schemes. Moreover, details such as when the inputs were received and at which level and when and to whom they were distributed were not properly documented.

➤ Further, neither proper form of register was prescribed nor any guidelines for maintenance of records relating to receipt and issue of various inputs were framed for TAO, CAO and AAs. Thus, CAO/AA had either not maintained records or maintained partial records, according to their choice in different formats. As a result, status of total distribution and timely distribution of inputs to the farmers could not be ascertained. For instance, TAO, Chalisgaon received Maize of 57.52 quintals and Jowar of 48.70 quintals under Gatiman Vairan Vikas Yojana in October 2015. However, entry of receipt of above seeds was not taken in the stock register. As a result, its distribution to the farmers could not be ascertained.

In reply, four⁵⁶ TAOs accepted (March 2018, July 2018, December 2017 and July 2018) the facts and stated that records would be updated; three⁵⁷ TAOs stated (May 2018, January 2018 and May 2018) that reply would be submitted after getting reports from subordinate offices. TAO, Chalisgaon stated (March 2018) that though the seeds were distributed to the farmers,

⁵⁴ Chalisgaon, Jamner, Kadegaon and Tasgaon

⁵⁵ Armori, Aurangabad, Chalisgaon, Chikli, Gadchiroli, Gangapur, Jamner, Kadegaon, Kalamb, Karjat, Katol, Kuhi, Murbad, Osmanabad, Sangamner, Shegaon, Tasgaon and Ulhasnagar

⁵⁶ Chalisgaon, Kalamb, Katol and Osmanabad

⁵⁷ Kadegaon, Kuhi and Tasgaon

entry in stock register could not be made and such omissions would be avoided in future.

2.1.9.2 Weakness in monitoring of Quality Control (QC) activities

In order to ensure quality of agriculture inputs, there was a separate quality control unit under the Directorate (I&QC) in Pune under CoA. In the State there were three seed testing laboratories, five fertiliser testing laboratories and four pesticide testing laboratories.

Director (I&QC) issued guidelines relating to the works of quality control, each year, for the entire State to be followed by the field formations. As per these guidelines, the work relating to QC included drawing of samples from the manufacturers, distributors and sellers and to get them checked for the notified quality in the designated laboratory. If a sample failed the required testing criteria, the Director (I&QC) has the authority to take action to stop sale of un-authorized or bogus or substandard inputs, confiscate such inputs and take further legal action against manufacturers. Director (I&QC) has to perform functions like issue of new permits to producers, distributors and sellers, to renew such permits and to take administrative/legal action in case of violation of law/rules under which such permits were issued.

i) Fixation of targets without justification

➤ Every year Directorate (I&QC) prescribes targets for the samples of seed to be drawn throughout the year, starting from the month of April each year. As the kharif season starts from June and rabi season from October, the testing of samples should have been completed by June for kharif season and by October for rabi season.

Year wise targets fixed during 2013-18 for samples to be drawn for the various inputs in the State, is shown in **Table 2.1.9**.

Table 2.1.9: Year wise targets fixed for samples to be drawn for inputs (No. of Samples)

Year	No. of producers of inputs	No. of distributors/sellers of inputs	Targets fixed for drawing samples		
			Seeds	Fertilizers	Pesticides
2013-14	407	118993	21000	13000	5400
2014-15	407	118993	21020	14600	5400
2015-16	407	118993	20875	13000	5463
2016-17	571	124749	20875	16188	5400
2017-18	606	121915	20875	24300	8000

Source: Information furnished by the Commissioner of Agriculture, Pune

It could be seen from table above, that samples of seeds to be drawn were reduced in last three years, even though the producers, distributors and sellers had increased. The system for fixing target was not available at Director (I&QC) level.

➤ It was also observed that the targets for samples to be drawn and tested at designated laboratories were issued in the months of April/May during 2014-18 from the Directorate (I&QC). Due to delayed issue of targets the samples drawn in May to July every year were much more than that drawn in April. During 2013-18, for seeds, which was a major input, samples prescribed to be drawn were mostly in the month of May to July (58 per cent) for kharif season. Considering a month's time taken by the

STLs, as prescribed under Seed Act, the samples, which failed in the testing and reported in the month of July/August for kharif season crops would not serve any purpose as by that time the sowing was completed and no corrective action could be taken. Thus, the targets were needed to be fixed at the earliest by March every year.

Government accepted the facts and stated (October 2018) that Department would fix the targets for seed inspectors to draw the samples well in time for kharif season and would also ensure the testing of samples before June end. The State was making all out efforts to enhance the capacity of laboratories. Action, however, against failed samples was taken as per the provisions of the Act/Rules.

On this being pointed out, Government stated that corrective measures to test the samples before the sowing season would be ensured.

It is recommended that the Government should develop an effective mechanism to lay down the samples of seeds which is achievable, their timely verification and enforce its implementation.

ii) Over burdening of Seed Testing Laboratories during May and June

It was observed that samples drawn of certified and truthful seeds and sent to STLs by Department in the months of May-June were much more than the average monthly capacity of the STLs. In case of two STLs (Nagpur and Parbhani), the samples for seeds drawn during April to June in 2013-18 is shown in **Table 2.1.10**.

Table 2.1.10: Details of samples for seed received by two STLs in 2013-18
(No. of Samples)

Month	Average monthly capacity	Sample Received	Average monthly capacity	Sample Received
STL Nagpur		STL Parbhani		
Kharif Season				
2013-14				
April	500	270	310	214
May	500	638	310	733
June	500	2537	310	1494
2014-15				
April	500	57	310	346
May	500	923	310	1234
June	500	2069	310	652
2015-16				
April	500	95	310	337
May	500	449	310	634
June	500	2500	310	1307
2016-17				
April	500	74	310	74
May	500	626	310	676
June	500	2543	310	1346
2017-18				
April	658	21	409	80
May	658	950	409	1142
June	658	2642	409	1310
<i>Source: Information furnished by the Commissioner of Agriculture, Pune</i>				

As a result, both the STLs were overburdened in the month of May and June every year by the testing work and the test results were delayed. During 2017, there were 493 test reports (15.92 per cent of total reports) delayed by STL, Nagpur, which included 77 samples (15.62 per cent) of seeds which failed the quality tests. Moreover, such delay in the month of June has severe consequences, as the seeds which failed in tests were already available for sale in the market.

Government accepted the facts and stated (October 2018) that sampling targets would be decided on the basis of the laboratory capacity and available technical man power. Strengthening of laboratories was also a prime consideration of Government. The STLs accepted the facts and stated that the samples received were more than the month-wise testing capacity, thus, increased target should be distributed for kharif season in the month of March to June. The issue was also raised in monthly meeting held at Director (I&QC), CoA.

Government apprised that action would be taken to enhance the capacity of the STLs or to outsource the testing of seeds in the peak months.

iii) Shortfall in testing of inputs

Monthly Progress Reports for the years 2013-14 to 2017-18 at CoA level, relating to quality control checks of seeds, fertilizers and pesticides, made available by the Directorate (I&QC) revealed that there were shortfalls in testing of samples drawn as shown in **Table 2.1.11**.

Table 2.1.11: Details of drawal of samples and testing

(No. of Samples)

Shortfall in quality control aspects						
Particulars	Target	Samples drawn	Samples tested	Per cent of shortfall of samples tested to samples drawn	Samples failed	Percentage of failed samples
Seeds	104645	101328	91556	9.64	4752	5.19
Fertilizers	81088	80951	69680	13.92	7339	10.53
Pesticides	29663	33289	26798	19.50	955	3.56

Source: Information furnished by the Commissioner of Agriculture, Pune

From the above details, it could be seen that seed was a critical issue and there was shortfall of 9.64 per cent in testing of samples drawn which needed to be improved. Similarly, there was shortfall of 13.92 per cent and 19.50 per cent in testing of samples drawn for fertilizers and pesticides respectively.

Government stated that necessary action was being taken to change the existing systems.

2.1.9.3 Shortfall in inspection of MI sets and monitoring

As per State guidelines for MI, DSAO was required to exercise regular check of one per cent of MI sets installed in the respective districts. For calculation of amount of subsidy payable to the farmers, cross-checking of installed MI sets by the officers/officials at different levels is important. Further, as per CoA's instructions (January 2016), at least 10 per cent of MI sets installed during 2010-15, of each Taluka, were to be inspected by inter-district teams.

In three⁵⁸ test-checked DSAOs, it was observed that there was shortfall in percentage check by the DSAOs (Buldhana 52 per cent, Jalgaon 18 per cent and Osmanabad three per cent) during 2013-18. In three⁵⁹ DSAOs, there was no shortfall. Three⁶⁰ DSAOs did not furnish the information.

Further, as regarding inter-district inspection, out of nine test checked DSAOs, two⁶¹ DSAOs inspected the installed MI sets and three⁶² DSAOs did not adhere to such instructions. Information from remaining four⁶³ DSAOs was awaited.

Thus, the percentage of prescribed checks were not exercised and instructions of the CoA were not adhered to.

The GoM stated (October 2018) that the CoA had sought report from DSAOs, which was awaited (December 2018).

2.1.9.4 Updated information under NFSM not available on website

As per guidelines of NFSM, TAOs were to upload the list of beneficiaries on the NFSM website⁶⁴ as soon as it was finalised by SLSC.

It was noticed that the list of beneficiaries was not uploaded by TAOs concerned as the data available on website and with CoA showed difference in number of beneficiaries during 2013-14 to 2017-18 as mentioned in **Table 2.1.12**.

Table 2.1.12: Difference in number of beneficiaries

(No. of Beneficiaries)

Year	No. of beneficiaries as per NFSM website	Beneficiaries as per CoA, Pune	Difference
2013-14	7140	1709113	1701973
2014-15	51840	1802237	1750397
2015-16	145577	1430531	1284954
2016-17	141266	2345208	2203942
2017-18	92014	814383	722369

Source: Information furnished by the Commissioner of Agriculture, Pune

In reply, the CoA accepted the facts and stated that list of such beneficiaries were maintained by DSAO/TAO. Reasons for not uploading the list of beneficiaries by TAOs were not furnished. However, the CoA assured (December 2018) that beneficiaries list would be uploaded as soon as available.

Reply from the GoM was awaited (March 2019).

2.1.9.5 Complaint cases under MI schemes

No records were maintained at CoA, Directorate (Horticulture) and DSAO level to monitor the complaints received from the aggrieved farmers relating

⁵⁸ Buldhana, Jalgaon and Osmanabad

⁵⁹ Ahmednagar, Nagpur and Sangli

⁶⁰ Aurangabad, Gadchiroli and Thane

⁶¹ Nagpur and Sangli

⁶² Gadchiroli, Jalgaon and Osmanabad

⁶³ Ahmednagar, Aurangabad, Buldhana and Thane

⁶⁴ Website maintained by GoI (nfsm.gov.in)

to non-receipt of subsidy. Complaint cases were just kept in bundles or in scattered manner at CoA level. It was seen that every year, a large number of complaint cases were received by the Directorate (Horticulture). Test check of 10 complaint cases pertaining to the years 2015-16 and 2016-17 revealed that on receipt of such complaint cases, the Director (Horticulture) issued letters to the concerned DSAOs for detailed scrutiny of complaints at their level and to intimate the status/outcome directly to the complainant. However, no information was available with Director (Horticulture) whether complaints had been resolved by the concerned DSAOs and result intimated to complainants.

As seen from web portal (<http://mahaethibak.gov.in>) of Department for MI Scheme there were 1,552 complaints registered during the period from October 2013 to September 2018 by the beneficiaries. However, action taken on such complaint cases by the Directorate or CoA was not available on web portal. Even the test checked DSAOs furnished 'nil' information on pending complaint cases. This indicated weak monitoring at Director and CoA level.

GoM while accepting the facts stated (October 2018) that the settlement of grievances had reduced due to lack of adequate staff. However, in order to solve the complaints received, staff had been appointed and appropriate action was being taken.

2.1.9.6 Shortage of field staff in Agriculture Department

The field staff which includes CAO, Supervisor and AA have to perform various duties relating to extension and training, distribution of agriculture inputs, crop cutting experiments (CCEs), water conservation works, collection of beneficiary contribution *etc.* Besides this, they were to collect various agriculture related data in each crop season. Thus, in order to achieve the desired work output and for better implementation of various agricultural schemes, there must be sufficient field staff at ground level to liaise with the farmers.

Scrutiny of information of sanctioned posts and men-in-position at field level revealed that there was shortage of staff against sanctioned strength as shown **Table 2.1.13**.

Table 2.1.13: Status of field staff as of March 2018

Post	(No. of employees)			
	Sanctioned Strength	Men in position	No. of vacant posts	Percentage of vacancy
TAOs	351	260	91	25.93
Agriculture Officers	767	424	343	44.71
CAOs	885	564	321	36.27
Agriculture Supervisor	1770	1281	489	27.62
Agriculture Assistant	10620	9819	801	7.54

Source: Information furnished by the Mantralaya, Mumbai

Test checked DSAOs stated that due to shortage of field staff, they were facing difficulties in implementation of schemes at field level.

Government stated (October 2018) that as per GR (May 2018), process of recruitment for vacant posts has been initiated.

2.1.9.7 Instances of sale of illegal seed

Unauthorized sale of Herbicide-tolerant (HT) Cotton seeds adversely affects the bio-diversity. During scrutiny of records at Mantralaya and field offices at DSAO Nagpur and DJDA Latur, it was observed (May 2018) that there had been growing instances of sale of illegal HT cotton seeds. The GoM intimated (October 2018) that 58.40 quintals of HT cotton seeds were destroyed (May 2018), 1,66,691 packets (83 quintals) of HT cotton seeds worth ₹ 1.77 crore were seized and 38 FIRs (three in 2016-17, five in 2017-18 and 30 in 2018-19) were filed in the State. In this regard, as per advice of GoI to GoM, special investigation team (SIT) had been constituted (February 2018) to probe the issue. The Report of the SIT was awaited (December 2018).

On this being pointed out, GoM accepted the facts and stated (October 2018) that besides forming the SIT, the State Government had formulated action plans to tackle this serious issue.

2.1.10 Conclusion

There was shortfall in the supply of seeds as compared to the total requirement of seeds in the State. The seed production chain in the State was affected adversely and was more severe in case of soyabean seed, resulting in shortage in availability of quality certified seeds to the farmers. Allowing re-registration of some companies, overlooking quality deficiencies in MI systems manufactured/supplied by them, placing incorrect facts on record, resulted in extending unwarranted financial benefit to them. The grants released for SC and ST categories by GoI under MI schemes, could not be utilized. Infrastructure for DNA fingerprint test was created without inclusion of provisions of such tests and analysis in Seed Act 1966, resulting in facilities remaining inoperative after construction, besides idle expenditure thereon.

There was underutilization of funds resulting in surrender thereof. There were instances of incorrect reporting in UCs. The unspent balance funds from GoI share were credited to the receipt head of Government account instead to the respective expenditure heads as GoI share. There were cases of misappropriation of money collected as farmers' contribution (*Lokwata*) by officials from beneficiaries, noticed by department in which no stringent action against such erring officials was taken.

In the demonstration programme department used old variety of seed instead of new one, which defeated the objective of promoting new variety. Production subsidy for foundation and certified seeds was not paid to farmers. There were instances of non-distribution of implements. Micro nutrients were not supplied to farmers in time. Soil Testing Mini Lab Kits were purchased without assessing the requirement. There were deficiencies in online web portal for MI scheme.

Maintenance of records at field level relating to distribution of agricultural inputs to farmers was not proper and hence audit could not ascertain the facts as to whom the inputs were distributed and whether they were distributed promptly. Samples of seeds to be drawn were reduced in last three years, even though the number of producers, distributors and sellers increased. The

target for quality control checks was not fixed well in time, for kharif season prior to the beginning of the season and as such there was delay in furnishing quality test reports. There was delay in submitting the test results by the laboratories for agricultural inputs resulting in distribution of inferior quality of inputs to the farmers in case of failed samples. The percentage prescribed for cross check of MI systems, by DSAOs of another district, were not exercised by them.

2.1.11 Recommendations

- Government should take measures to eliminate the persistent shortfall in production of seeds (breeder, foundation and certified) by setting up mechanisms for close monitoring of farm activities.
- Complete records and reliable database of inputs required, procured and distributed to the farmers should be maintained at field level.
- Old variety of seeds should be replaced with new variety of seeds after periodic interval to maintain Varietal Replacement Rate of seeds.
- Department should establish PFMS system to monitor the actual utilisation of funds and the correctness of UCs submitted by the DSAOs.
- Adequate funds are required to be demanded from GoI in case of MI as there was huge pendency of the eligible beneficiary farmers not being paid the subsidy due to shortage of funds.
- Capacity of testing at laboratories as well as number of samples drawn may be increased in order to ensure quality of inputs.
- Government should develop an effective mechanism to lay down the samples of seeds which is achievable, their timely verification and enforce its implementation.

REVENUE AND FOREST DEPARTMENT

2.2 Performance Audit on Management of Tiger Reserves in Maharashtra

Executive summary

Maharashtra has six Tiger Reserves spread over five National Parks and 14 Wildlife Sanctuaries encompassing an area of 9,116.80 sq km consisting of 3,951.02 sq km of core area and 5,165.78 sq km of buffer area. The Wild Life (Protection) Act, 1972 empowers the State Government to declare a forest area having substantial presence of tigers as a Tiger Reserve with due recommendation of National Tiger Conservation Authority for the purpose of protecting, propagating and developing wild life or its environment.

A performance audit on Management of Tiger Reserves in Maharashtra for the period 2012-18 indicated that

- Apex level interventions for enabling policy decisions and for taking major initiatives, regarding protection and conservation of tigers were ineffective.
- The Tiger Conservation plans, which play a significant role in formulating the management strategy for 10 years were non-existent in two Tiger Reserves while in remaining four Tiger Reserves, the Tiger Conservation Plans were formulated with delays ranging from 2.5 to seven years.
- Compartment histories are important for providing inputs for plan formulation, these were not being maintained in any of the Tiger Reserves.
- The Department did not show the resolve to secure inviolate space available for tiger habitats and these were being curtailed due to encroachment by human settlements and tourist facilities. These were further fragmented and criss-crossed by highways and railway lines. This led to tiger deaths due to electrocution and road accidents.
- Support infrastructure critical for protection of tiger habitats were inadequate. Unregulated tourism, particularly in Tadoba Andhari Tiger Reserve was a major cause for concern.
- The monitoring and internal control mechanism was weak which required strengthening.

2.2.1 Introduction

The Wild Life (Protection) Act, 1972 (Act) empowers the State Government to declare any area of adequate ecological, faunal and floral, natural or zoological significance as a Conservation Reserve (CR), a Wildlife Sanctuary (WLS), a National Park (NP) or a Tiger Reserve (TR), for the purpose of protecting, propagating and developing wild life or its environment and make rules for implementing the provisions of the Act. A forest area having

substantial presence of tigers with due recommendation of National Tiger Conservation Authority (NTCA⁶⁵) is considered for declaration as a TR.

In the State of Maharashtra, there are six⁶⁶ TRs spread over five National Parks and 14 Wildlife Sanctuaries encompassing an area of 9,116.80 sq km (core area – 3,951.02 sq km and buffer area – 5,165.78 sq km) as shown in the map below:



The TRs are constituted on a „core-buffer strategy’. The core area is protected area kept free of biotic⁶⁷ disturbances. Forestry operations, collection of minor forest produce, grazing and human disturbances are not allowed in core area. The five National Parks and 14 WLSs form the part of core area in six TRs. The buffer zone is managed with twin objectives of providing habitat supplement to the spillover population of wild animals from the core area and to provide site specific eco-development inputs to surrounding villages for relieving the impact on the core. Minor forestry operations, collection of non-timber forest produce and other rights and concessions are permitted in a regulated manner in the buffer zone.

2.2.2 Organizational set-up

The Forest Department is headed by a Secretary at Government level. The Principal Chief Conservator of Forests (Head of Forest Force) is the functional head of the Department. The Wildlife Wing is headed by Principal Chief Conservator of Forests (Wildlife), who also acts as the Chief Wildlife Warden (CWLW). Additional Principal Chief Conservator of Forest (WL) is the in-charge at circle level. The Tiger Reserves are headed by Field

⁶⁵ The National Tiger Conservation Authority (NTCA) is a statutory body of the Ministry of Environment and Forest, Government of India with an overarching supervisory/coordination role, performing functions as provided in the Wildlife (Protection) Act, 1972

⁶⁶ Bor Tiger Reserve (BTR), Melghat Tiger Reserve (MTR), Navegaon-Nagzira Tiger Reserve (NNTR), Pench Tiger Reserve (PTR), Sahyadri Tiger Reserve (STR) and Tadoba Andhari Tiger Reserve (TATR)

⁶⁷ Biotic factors are living or once-living organisms in the ecosystem. These are obtained from the biosphere and are capable of reproduction. Examples of biotic factors are animals, birds, plants, fungi and other similar organisms

Directors/ Directors at Divisional level; Deputy Conservator of Forests/Divisional Forest Officers work at sub-divisional level; Range, Round and Beat are controlled by Range Forest Officer (RFO), Foresters and Beat guards respectively.

2.2.3 Audit objectives

The audit objectives were to assess whether:

- planning for conservation and protection was adequate and resources were allocated as required for various activities of the Tiger Reserves;
- conservation and protection of tigers in Maharashtra was effective; and
- an effective system existed for monitoring and evaluation and prompt follow up action.

2.2.4 Audit criteria

The audit criteria were derived from the following:

- The Wild Life (Protection) Act, 1972 as amended in 2002 and 2006
- The Environment (Protection) Act, 1986
- The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006
- Maharashtra Wild Life Protection Rules, 2014
- National Wildlife Action Plan 2002-2016
- National Tiger Conservation Authority Guidelines
- Tiger Conservation Plan approved by the Ministry of Environment and Forests, GoI
- Maharashtra Forest Manual, Contingent Rules, General Financial Rules
- Various guidelines and orders issued by the GoI, GoM and Hon'ble Supreme Court of India.

2.2.5 Scope and methodology of Audit

A performance audit on “Management of Tiger Reserves in Maharashtra” covering a period of five years from the year 2012 to 2017 was conducted between January 2017 and June 2017. Records maintained at Secretariat (Forests), Principal Chief Conservator of Forests (PCCF) (Wildlife), offices of all the five controlling authorities⁶⁸ and six forest divisions⁶⁹ pertaining to all six Tiger Reserves were scrutinized. The audit objectives, methodology and scope of the performance audit were discussed with the Secretary (Forests) at an entry conference held on 03 March 2017. The exit conference with Secretary (Forests) was held on 10 November 2017, wherein all the audit findings were discussed. The views expressed by the Department were

⁶⁸ CCF & Field Director of MTR, TATR, NNTR, STR and PTR /BTR

⁶⁹ TATR - DCF, Core and DCF, Buffer; MTR – DCF, Akot, DCF, Gugamal and DCF, Sipna; STR - Deputy Director, Karad

also incorporated appropriately. The facts and figures included in the PA have been updated upto March 2018.

Audit Findings

The audit findings include deficiencies in planning for conservation and protection of tigers, protection and conservation, allocation of resources, human resource management, support infrastructure, rehabilitation in Sahyadri tiger reserve, tourism in tiger reserves and monitoring and evaluation are discussed in succeeding paragraphs. The performance of the wildlife crime cell has also been discussed in the report.

2.2.6 Planning for conservation and protection of tigers

Protected Areas (PAs) are constituted and governed under the provisions of Wildlife Protection Act, 1972 (Act), as amended from time to time. Implementation of this Act is complemented by various other Acts and orders⁷⁰. The responsibility of implementation of national policies and plans rests with the State Forest Departments.

During the period under scrutiny 2012-13 to 2017-18, the area under Tiger Reserves (TRs) had increased by 2,713.90 sq km⁷¹ with the declaration of two new TRs viz. Navegaon Nagzira Tiger Reserve (NNTR) and Bor Tiger Reserve (BTR) in December 2013 and September 2016 respectively.

According to Tiger Census data (2010 and 2014) appearing in NTCA Report, at national level and state level, the number of tigers had increased from 168 in 2010 to 190 in 2014 in the state. The rate of growth was, however, lower than the national growth rate. The tiger population in the state went up by 12 *per cent* from year 2010 to 2014, whereas the tiger numbers registered a 30 *per cent* increase at the national level (2,226 tigers) during the same period. The Tiger census for 2018 has taken place, however, the process of all-India tiger estimation was in progress (June 2018). The State Government may, therefore, take more proactive measures for conservation and protection of tigers.

GoM had made Wild Life (Protection) (Maharashtra) Rules during 1975 under section 64 of the Wild Life (Protection) Act, 1972 and the same were revised in 2014 as Maharashtra Wild Life (Protection) Rules 2014.

The GoI through NTCA, entered (2009-14)⁷² into a tripartite agreement with the State Government and the field directors of the tiger reserves to delineate the responsibilities and reciprocal commitments linked to fund flows and to ensure tiger conservation in the country. The agreement envisaged legal delineation and notification of core and buffer areas, establishment of a tiger conservation foundation and development of a tiger conservation plan within

⁷⁰ The Environment (Protection) Act, 1986, National Wildlife Action Plan 2002-2016, National Tiger Conservation Authority Guidelines, Orders of the Supreme Court, guidelines and orders issued by the GoI and by GoM

⁷¹ GoM declared BTR by notification in August 2014 (138.12 sq. km. core) and December 2015 (678.15 sq.km. buffer). The NNTR was declared in December 2013 (656.36 sq. km. core) and September 2016 (1,241.27 sq. km. buffer)

⁷² MTR - 02/09/2009, TATR - 02/09/2009, PTR - 02/09/2009, STR - 02/08/2010, NNTR-09/06/2014 and BTR - 14/10/2014

six months. A State-level Steering Committee and Local Advisory Committee (LAC) were also to be constituted for the purpose.

2.2.6.1 As per Section 6 of the Act, the State Government should constitute a State Board (constitution of the board given in **Appendix 2.2.1**) for Wildlife with the Chief Minister of the State as Chairman, for selection and management of areas to be declared as protected, formulation of policy for protection and conservation of wild life and any other matter related to wild life. As per Section 7 of the Act, the Board was required to meet at least twice a year.

Audit observed (June 2018) that during 2012-2018, the Board met only once a year (7th June 2012, 24th January 2013, 20th February 2014 and 31st January 2018) and no meeting was held during 2017. During 2015 and 2016 meetings were held twice⁷³ a year.

Similarly, under Section 38(U) of the Act, the State Government was to constitute a Steering Committee under the Chairmanship of Chief Minister and Chief Wild Life Warden as Member Secretary, for ensuring co-ordination, monitoring, protection and conservation of tiger, co-predators and prey animals. The Steering Committee was formed in August 2008 and reconstituted in February 2013.

It was observed that during 2012-18, only one meeting of the Steering Committee was convened (January 2013). The decision taken in the meeting was regarding protection and conservation measures to be taken in the tiger reserves. This decision was to be reviewed in the subsequent meetings. However, the objective of formation of Steering Committee to monitor the protection and conservation of TRs in the State was not met in the absence of regular meetings. There were huge delays ranging from 34 days to 912 days in delineation and notification of buffer areas in all six TRs and core area in Sahyadri TR (STR).

In the exit conference, the PCCF (WL) stated that meetings of steering committee were conducted as per the availability of the Chief Minister.

The Forest Department needs to ensure regular meetings of State Board of Wildlife and Steering Committee for effective monitoring of protection and conservation of TRs in the State.

2.2.6.2 As per para 2.1.8 of NTCA guidelines (2012), a Local Advisory Committee (LAC) should be constituted for each TR by the State Government. The main functions of LAC were to review the tourism strategy with respect to the tiger reserves and make recommendations to advise local self Government and State Government on issues relating to development of tourism in and around tiger reserves. The LAC was also to monitor regularly (at least half yearly) all tourist facilities in and around tiger reserves to encourage tourism for augmenting employment opportunities for members of local communities. For this purpose the LAC was to conduct regular meetings.

The Divisional Commissioner or an officer of equivalent rank to be nominated by the State Government who would be the Chairperson and the

⁷³ 22/06/2015, 04/12/2015, 05/04/2016 and 26/10/2016

Field Director of the Tiger Reserve would be the Member Secretary. The other members would be Member/s of the State Legislature representing the area comprising the tiger reserve concerned, District Collectors/ Local Territorial Divisional Forest Officers, Honorary Wildlife Warden (if present), and officials of State Tourism Department.

It was observed that, the LAC was constituted⁷⁴ in all six Tiger Reserves. Against twelve meetings of LAC to be held in MTR, TATR, PTR & STR, only one meeting was held in MTR, four in TATR, three in PTR and seven in STR. In NNTR, no meetings were held as against eight to be held, and in BTR one meeting was held as against six (June 2018).

Consequently, the eco-tourism activities in NNTR were being conducted without an approved Tourism plan.

In TATR, the LAC had discussed (February 2016) various activities relating to eco-tourism, eco-sensitive zone, declaration of 'go' and 'no go' zone villages around the tiger reserve in order to keep the area inviolate for the wild animals, but the minutes were not finalized by the Chairman of LAC as of June 2018.

The PCCF (WL) agreed that the LAC meetings were not held in some TRs and assured that meetings would be held regularly.

2.2.6.3 Preparation of Tiger Conservation Plan

According to Para 38(V) of The Wild Life (Protection) Amended Act 2006, the management of Wildlife Sanctuaries and National Parks which were notified as Tiger Reserves was to be done in accordance with Tiger Conservation Plans (TCPs) approved by NTCA, generally for a period of 10 years. Detailed technical guidelines for preparation of TCP were issued by NTCA in 2007.

As per NTCA guidelines, Tiger Conservation Plan should have different chapters for core and buffer areas including SWOT⁷⁵ analysis and clear plan objectives incorporating all zonal components. In Maharashtra, the TCP is prepared by the Field Director of the respective TR and is forwarded to NTCA for approval through PCCF (WL). As per Tripartite Agreement (MoU) between the Field Director, State Government and NTCA, the Tiger Conservation Plan was to be prepared within six months from the date of agreement. TCP was required to be placed in the public domain on the official website with details of execution and was to be made available in local language to promote public vigil. We observed that:

➤ TCPs were not prepared in NNTR & BTR (June 2018). In the four remaining TRs, there were delays in preparation of TCP ranging from 30 months to 84 months from the date of signing of tripartite agreement. In case of PTR, the TCP was approved after a delay of four years leading to curtailing of the effective period of the plan to six years. Delay in preparation of TCPs was mainly due to non-approval of plan by LAC, absence of clear

⁷⁴ MTR, TATR, PTR, STR (November 2012), NNTR (July 2014) & BTR (August 2015)

⁷⁵ Acronym for Strengths, Weaknesses, Opportunities and Threats and is a structured planning method that evaluates those four elements of a project or plan

guidelines on the carrying capacity of vehicles in the Reserve and delay in finalization of the eco-tourism policy *etc.*

➤ The Compartment histories (CH⁷⁶) had not been maintained in any of the six TRs since their formation. The CHs record the activities undertaken and floral/faunal/geomorphologic changes that had occurred in that compartment in the relevant period and are important inputs for preparation of TCP.

➤ The department neither placed the TCPs in the public domain nor was the same made available in local language to promote public awareness.

The PCCF (WL) accepted the facts and stated that efforts would be made to avoid delays in preparation of TCP in future; all the field directors had been instructed to maintain CH and to put the TCP in public domain after approval by NTCA.

2.2.6.4 Non declaration of ecologically sensitive zone

The National Wildlife Action Plan (NWAP) 2002-2016 laid down that all identified areas around Protected Areas (PAs) and wildlife corridors are to be declared as ecologically fragile under the Environment (Protection) Act (EPA), 1986. Hon'ble Supreme Court had also directed (December 2006) regarding the issue of declaration of eco-sensitive zone to Ministry of Environment and Forest (MoEF) to respond to above directions.

The (MoEF), had issued guidelines (February 2011) for declaration of Eco-Sensitive Zones (ESZ⁷⁷) around National Parks and Wildlife Sanctuaries. The State Government had to identify key factors responsible for degradation of habitats including grasslands, wetland, forests, *etc.* outside or adjacent to protected areas; the land falling within 10 km of protected areas was to be surveyed and accordingly a proposal for declaration of ecologically sensitive zone was to be submitted to MoEF.

It was observed that ESZ was declared in NNTR (February 2016), MTR (December 2016) and PTR (September 2017) and in the remaining three⁷⁸TRs, it was under process (June 2018). The TATR, draft notification of ESZ (2015) mentioned that no new commercial hotels and resorts would be permitted within one kilometer of the boundary of the Protected Areas⁷⁹ except for the accommodation for temporary occupation of tourists related to eco-friendly tourism activities. Audit observed that fifteen resorts/home-stays, however, had come up within one kilometer of the core boundary after 2015. Further, 16 home-stays /resorts were developed prior to 2013 near the core boundary of TATR without obtaining permission from the competent authorities. On this, Forest Department had requested (April 2017) the

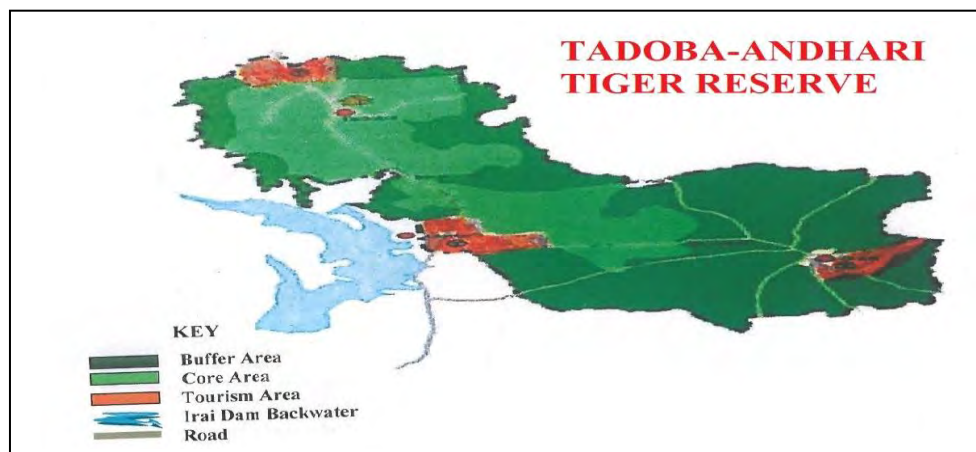
⁷⁶ Compartment history (CH) which includes details of compartment boundary, stream and riparian system, roads, perennial pools, reservoirs, lakes, groove of old large trees, villages, agriculture land, operations performed *etc.*, is an important document for deciding plan and strategies of management. Range Officer (RO) is required to update CHs on annual basis, which are to be vetted by the senior officers up to Division level

⁷⁷ Eco-Sensitive Zones are areas notified around National Parks and Wildlife Sanctuaries to regulate activities

⁷⁸ TATR, STR and BTR

⁷⁹ Protected area means an area notified under sections 18, 35 and 36A of the Wildlife (Protection) Act 1972

Competent Authority to take necessary action. The Department apprised (June 2018) that it could not initiate any action due to non-finalization of ESZ.



The commercial activities cause hindrances in free movement of animal upto the water source (Irai Dam backwater which is a water source of TATR) and also possible incidents of man-animal conflict in this area cannot be ruled out.

The PCCF (WL) stated that declaration of ESZ did not bar any tourism activities in and around tiger reserves.

The reply was not convincing. Had the draft notification of ESZ for TATR been approved, the commercial activities running within one kilometer of the boundary of the Protected Areas could have been prohibited. This was also in contravention of the policy of declaration of ESZ, which emphasizes on regulating and restricting the activities in and around the TR to ensure land use compatible with the needs of tiger conservation.

2.2.7 Protection and Conservation

2.2.7.1 Activities inside the Core area

As per para 2.2.12 of NTCA guidelines (October 2012), permanent tourist facilities located inside core or critical tiger habitat, were required to be phased out within a time frame decided by the LAC. Plans developed and approved by the LAC to ensure low impact of these facilities were to be followed. Privately run facilities such as catering inside the core or critical tiger habitat with night stay were prohibited by the guidelines. If required, such facilities were to be run only by the Tiger Conservation Foundations.

The MoEF directed (December 2014) that no new roads should be constructed in the critical tiger habitat (CTH) but, if this was required; approval of the NTCA should be obtained. Further, no widening or up-gradation of roads was allowed in the CTH and within a radius of one km of the CTH or within ESZ, whichever was less.

It was noticed that:

- In MTR an Interpretation Complex Centre (Seemadoh village) and a Forest Rest house (Kolkas) were run in the core area by the Forest

Department on commercial basis. Due to these facilities, a number of small food stalls had also come up in adjoining area.

➤ In TATR, a forest staff colony and forest Rest Houses at Mohurli and Kolsa were found in the core area. A new cement concrete road was constructed (March 2016) which passes through the core area of TATR, as there was no alternate route available for the villagers and tourism. Required permission from NTCA for the said construction was not found on record. The Department stated (June 2018) that the road was constructed under Section 4 of Forest Rights Act (FRA) 2006, and, therefore, it was not necessary to take permission from NTCA or MoEF for diversion of forest land. Further, in the core area of TATR, the department upgraded an existing road at a cost of ₹ 3.86 crore which was not allowed in terms of MoEF directives quoted above.



➤ In NNTR, Thadezari village having 110 families in the middle of the core area was demarcated as buffer area due to problems associated with rehabilitation (**Paragraph 2.2.7.2**). The village was surrounded by the core area and presence of substantial human population in the critical tiger habitat caused immense biotic pressure⁸⁰.

➤ A tourism complex of the Forest Development Corporation of Maharashtra Limited (FDCM) spread over an area of 17.60 hectares consisting of 14 suites and 32 bed youth hostel, canteen facility alongwith maintenance staff in NNTR was actually surrounded by the core area but had been demarcated outside the critical tiger habitat. Two suites in Nilay Forest Camp House were also in the critical tiger habitat.



➤ In accordance with the Recognition of Forest Rights (ROFR) Act, 2006, rights to collect minor forest produce were granted (September 2012) to traditional forest dwellers in 3,959.13 Hectares of forest area falling in the core area of NNTR. The rights were given by District Level Committee⁸¹ without reference to the Conservator of Forest, NNTR. The area allotted had

⁸⁰ Report of Management Effectiveness Evaluation (MEE) report of NTCA (July 2016)

⁸¹ Deputy Conservator of Forest (Territorial), Gondia was Member Secretary

not been demarcated leading to problems in safeguarding the provision of the Act as confirmed from the Wildlife authorities and also accepted by PCCF.

Thus, the presence of human settlements, rest houses and residential quarters in core area alongwith human activities were contrary to NTCA guidelines (October,2012) besides causing disturbance to wildlife. There were 3,494 instances of human deaths and injuries reported during 2012-18 (June 2018).

The PCCF (WL) stated (November 2017) that in MTR the facilities were created before formation of MTR; the Kolsa rest house in TATR had been closed for tourism and Mohurli rest house was mainly used by Forest Officers. He also stated that the concrete road was constructed for use of people of Mohurli Village and upgradation of road in TATR would be examined; Thadezari Village is located towards periphery of Core zone of NNTR, Nilay rest house was used for camp office as well as for stay of Field Officers while the tourist complex run by FDCM was situated in buffer area. The Kolsa rest house had been closed since March 2017 (June 2018).

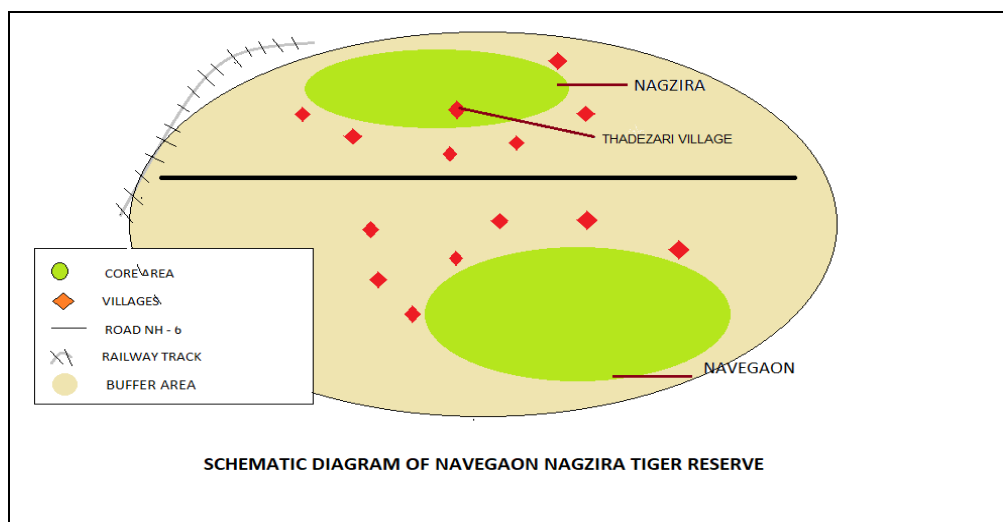
The reply was not convincing in view of the facts that as per NTCA guidelines, permanent tourist activities located inside core or critical tiger habitat were required to be phased out in MTR and TATR. Further, the Forest department should ensure that the tourist activities are strictly prohibited in the rest houses located in MTR, TATR and NNTR. Contention of the department in case of tourist complex run by FDCM is also not convincing as this tourist complex is in buffer area surrounded by the core area causing disturbance due to tourism activities.

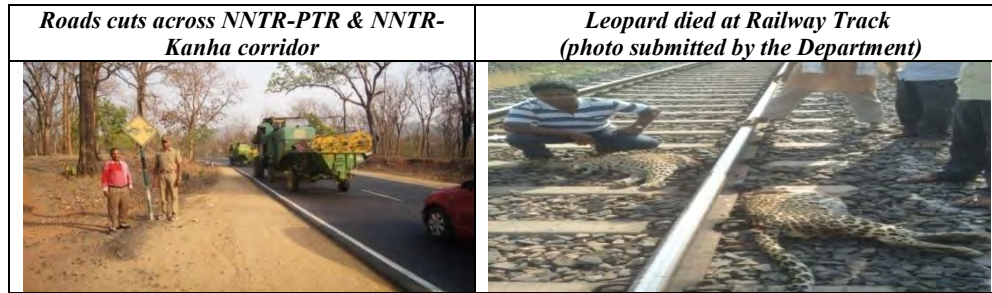
2.2.7.2 Management of corridors and buffer areas

NTCA guidelines for preparation of TCP stipulated that habitat fragmentation adversely affects wildlife due to decreased opportunity available for wild animal movement from different habitats.

Audit noticed that:

- In NNTR, both Navegaon and Nagzira blocks were separated from each other by fragmented forest and non-forest areas with large number of villages, farmlands, highways and railway lines as shown in the diagram below. As a result, there have been instance of wild animals being run over by train/bus.





- The NTCA guidelines provide for safeguarding wild life from high tension (HT) electric lines passing through TRs. Further, MoEF issued guidelines (May 2014) to insulate transmission lines passing through National Parks, Wildlife Sanctuaries and Wildlife Corridors for preventing electrocution of animals.

HT lines having a total length of 282.914 km were passing through in all the TRs. Death of eight tigers due to electrocution was reported during 2012-18.

- Section 38 (V) of the Act provided that buffer area consisting of area peripheral to critical tiger habitat or core area should be identified and established. The buffer area of STR was declared in August 2012 admeasuring 565.45 sq km. It was observed that limited buffer area had been declared on the eastern side and no buffer was declared on the western boundary (Konkan side) of core area of STR. The Department was of the view (July 2017) that due to limited or no buffer, it was difficult to implement the buffer habitat management effectively. It was also opined that due to no buffer on the western side, illegal entry of unscrupulous elements in the reserve was on the rise in the recent years.

- As per Section 33A of the Act, immunization of livestock kept in or within five kilometers of a park/sanctuary was essential to curb unnatural mortality. As per Para 4.8.3 of Maharashtra Forest Policy 2008, grazing in forest areas should be regulated with the involvement of the community. In addition, adequate grazing fee was required to be levied to discourage people in forest areas from maintaining large herds of non-essential livestock.

During the period 2012-18, in all the six TRs, average of 1.72 lakh cattle were immunized every year as against the target of 1.98 lakh. 6,520 grazing passes were issued in MTR as against the average population of 31,553 cattle and in the remaining TRs no grazing passes were issued. These facts indicated lack of regulation over live stock population which could have significant impact on tiger habitats.

- As per National Wildlife Action Plan 2002-2016, immediate steps should be taken for preventing the entry of domestic and feral species (not domesticated species) in the Tiger Reserves that may lead to genetic swamping⁸². In the TCP of STR, it was stated that since the rehabilitation of villages was in progress, there was a tendency to leave the cattle free to graze, which led to stiff competition for water, fodder and habitat with the

⁸² Genetic swamping happens when original set of naturally evolved (wild) region specific genes/genepool of wild animals and plants become hybridized with domesticated and feral varieties or with the genes of other innovative wild species or subspecies from neighboring areas

wild herbivores. Such feral cattle may at a time be carriers of diseases like Rinder Pest and Foot and Mouth. Around 500 feral cattle were reported inside STR.

In 2013-14, an amount of ₹ 0.84 lakh was spent for removal of 500 feral cattle from the protected area. As the tigers are being rehabilitated in the reserve, presence of such cattle posed a serious threat for tiger conservation activities. The Department confirmed (July 2018) presence of 86 feral cattle since 2017.

The PCCF (WL) stated that, joint survey had been carried out with NHAI for planning the overpasses/ under passes on NH-6 in the corridor area to curb mortality of wild animals. It was also stated that demarcation of buffer area in western side of STR was under way and cattle immunization programme was being carried out in nearby villages of tiger reserves regularly. Action regarding issue of grazing passes and revision of fee would be initiated and the process of removal of feral cattle was going on.

2.2.8 Allocation of resources

The funds for TRs are being released under Project Tiger as per the Annual Plan of Operation (APO⁸³) sanctioned by NTCA. Funding was to be shared by the GoI and GoM proportionately⁸⁴. The demand made, funds released and expenditure incurred during 2012-18 under Project Tiger is shown in **Table 2.2.1**.

Table 2.2.1: Demand, and release of funds and expenditure under Project Tiger

(₹ in crore)						
Year	Funds demanded	Total fund released	Funds released by GoI	Funds released by GoM	Percentage of total funds released against demand (3/2)	Expenditure
1	2	3	4	5	6	7
2012-13	87.44	13.21	9.78	3.43	15.10	13.62
2013-14	41.26	39.31	34.84	4.47	95.27	39.26
2014-15	107.34	39.38	34.31	5.07	36.68	39.2
2015-16	111.96	43.42	13.61	29.81	38.78	43.42
2016-17	171.41	117.34	21.04	96.30	68.45	117.34
2017-18	136.07	111.80	22.02	89.78	82.16	110.83
Total	655.48	364.46	135.6	228.86		363.67

Source : Information furnished by PCCF

The funds released under Project Tiger were always lower than the demand except in the year 2013-14 which affected works like relocation of villages, habitat improvement and forest protection works.

In addition to the funds under Project Tiger, GoM released funds for plan and non-plan⁸⁵ expenditure for all TRs as given in **Appendix 2.2.2**.

⁸³ Annual Plan of Operations is prepared for forecasting works and activities to be taken up in next financial year

⁸⁴ Recurring cost to be provided in the ratio 50:50 (GoI:GoM) and non-recurring cost was to be shared 100 per cent upto 2014-15 by GoI and from 2015-16 onwards it is 60:40

⁸⁵ Administrative expenditure such as Pay, TA and Contingency

2.2.8.1 Release of funds

Wildlife conservation activities are carried out in accordance with the Annual Plan of Operations (APOs). As per the tripartite agreement with GoI, GoM and TRs, the first instalment of the funds was to be released within four weeks after receipt of the APOs by the GoI. It was, therefore, essential that APO should reach GoI at least four weeks before commencement of the financial year so that the seasonal works could be taken up at the beginning of the financial year. The dates of submission of APOs of all the six tiger reserves to the GoI are shown in **Table 2.2.2**.

Table 2.2.2: Dates of submission of APOs by all six TRs

Year	MTR	PTR	BTR	STR	TATR	NNTR
2012-13	17/5/2012	8/6/2012	-	8/6/2012	8/6/2012	-
2013-14	21/5/2013	24/5/2013	-	31/5/2013	15/5/2013	-
2014-15	28/3/2014	28/3/2014	27/8/2014	28/3/2014	28/3/2014	28/3/2014
2015-16	26/3/2015	26/3/2015	26/3/2015	26/3/2016	26/3/2015	26/3/2015
2016-17	26/5/2016	24/5/2016	24/5/2016	7/6/2016	25/5/2016	26/5/2016
2017-18	20/3/2017	23/3/2017	23/3/2017	23/3/2017	23/3/2017	30/3/2017
<i>Source:- Details obtained from PCCF</i>						

Thus, there was delay ranging between one and six months in submitting the APOs to NTCA. This delay caused GoI to release the funds during the months of May to September every year.

As per NTCA guidelines, the money released by GoI under Project Tiger was to be made available to the TR within two weeks of its receipt in the State, for implementing tiger conservation initiatives, as proposed in the APOs. During 2012-18, the GoM had released the funds to respective tiger reserves with delays ranging between one and 14 weeks. As a result, the pay and allowances of Special Tiger Protection Force established in four TRs was disbursed belatedly.

The PCCF (WL) stated that release of fund got delayed because of variations in demand and allocation, which necessitated recasting of planned operations as per the allocation.

2.2.8.2 Non-recovery of conservation fee

As per revised guidelines of NTCA (October 2012), GoM formulated the tourism policy in November 2012 which stipulated that the conservation fee from tourism facilities situated in notified buffer area of Tiger Reserves was recoverable as per rates prescribed for the conservation of wildlife and enhancing the livelihood of local population. Tourism related activities were operational in three TRs viz. TATR, PTR and MTR but the applicable conservation fee amounting to ₹ 0.59 crore was not recovered (March 2018) from various tourist facilities located in these TRs. The resort owners have not remitted the conservation fees despite notices being issued by the Department.

The PCCF (WL) accepted the facts in respect of PTR and TATR and stated that in MTR, these resorts mainly cater to the tourists coming to visit hill station of Chikhaldara and also pay tax to concerned municipal authority.

The resort owners have represented to the Government for waiving the conservation fee; decision on the same was awaited (June 2018).

The contention of the Department was not acceptable as the conservation fee was to be charged with specific objectives. The Forest department should effect recovery of conservation fee.

2.2.8.3 Recovery of compensation from Wind Mills and Resort owners

GoM sought permission of the Hon'ble Supreme Court of India for rationalization of Koyana Wildlife Sanctuary (under Sahyadri TR) by excluding 9,965.005 hectares of non-forest land which included 206 wind mills, nine resorts, six roads and one Minor Irrigation Tank. The mills/resorts were constructed prior to and after the order (February 2000) of Hon'ble Supreme Court by obtaining permission from the Competent Authorities. The Central Empowered Committee of the Supreme Court fixed the Net Present Value (NPV) as ₹ 8.03 lakh for mills/resorts constructed prior to the order of February 2000 and ₹ 16.06 lakh for mills/resorts constructed after the said order.

It was noticed that 10 windmills/resorts had still not paid the compensation amount of ₹ 1.81 crore and the process of dismantling them was yet to be carried out by the Department (June 2018). The lack of action on windmills, thus, hampered the conservation activities in the area concerned.

The PCCF (WL) stated that the wind mills had been sealed and taken into custody by Forest Department. The fact was that recovery of compensation and dismantling of wind mills could not be done.

2.2.8.4 Non-adherence to sound financial practices

In two (NNTR and TATR) TRs, an amount of ₹ 4.29 crore received for construction and protection works was drawn from plan and non-plan grants during (March 2013 to March 2017) and was kept in the bank accounts of Tiger Foundation (NNTR) and Village eco-development Committee, Palasgaon (TATR). As of March 2018, the amount was not fully utilized. The drawal of funds without immediate requirement was contrary to the provisions of Maharashtra Treasury Rules as it should be drawn only when it was required for immediate expenditure.

The CCF/DCF (June 2018) accepted that the available grant was diverted to the Tiger Conservation Foundation since the construction activities allotted to the contractor were not completed by 31st March⁸⁶.

2.2.9 Human Resource Management

(i) Lack of unified command

As per the guidelines of Project Tiger there should be a Field Director exclusively for each Tiger Reserve who was responsible for overall management of wildlife and nature conservation within the protected area assigned to him. It was observed that:

➤ BTR, was functioning under the additional charge of FD of PTR since its formation in August 2014.

⁸⁶ NNTR-March 2015, 2016 and 2017. TATR-March 2014, 2015 and 2016

- In MTR 739.47 sq. km of the buffer zone, which constituted about 60 per cent of the total buffer area of MTR, was not transferred to Field Director, MTR for unified control; it was under the functional control of four Territorial Divisions.
- In NNTR, 1,241.30 sq km area was declared (September 2016) as buffer zone, it was, however, not handed over to respective Field Director for unified control (June 2018).

Thus, four Tiger Reserves were functioning under dual administration contrary to the Project Tiger guidelines, which affected the project implementation and protection inside the tiger reserves. For instance, in TATR the fire protection works were being undertaken by the FDCM which was not under the direct control of the Field Director. Thus, there was a need to hand over the FDCM areas to Field Director, TATR as suggested in the Monitoring Effectiveness Evaluation (MEE) Report of NTCA 2014. The proposal of the same was submitted by the Field Director, TATR (2018) to PCCF (WL).

The PCCF (WL) intimated that action was being initiated.

(ii) Field Directors

As per NTCA guidelines the State Government shall post a motivated officer with proven track record, preferably trained in wildlife management, as Field Director of the Tiger Reserve, with a minimum tenure of three years (extendable if the situation warrants). It was observed that in Navegaon Nagzira Tiger Reserve, only two of the six Field Directors posted during the period from 2013 to 2016 were trained in the wild life management.

(iii) Special Tiger Protection Force

The NTCA guidelines provided for raising, arming and deploying Special Tiger Protection Force (STPF)⁸⁷ in tiger reserves for protection of tiger and wild life. NTCA had sanctioned formation of STPF in four out of six TRs. The STPF should be formed with 112 posts (four officers, 81 guards and 27 forest watchers) consisting of three platoons for each of the four TRs. The men-in-position and vacancies are shown in the **Table 2.2.3**.

Table 2.2.3: Details of STPF and area covered for protection

Name of Tiger Reserves	Area of Tiger Reserve	Sanctioned platoon	Protection area covered by each platoon in sq km	Men-in-position as against sanction of 112 post	Total vacancy	Percentage
TATR	1727.59	3	575.73	107	5	4.46
MTR	2768.52	3	922.84	107	5	4.46
PTR	741.22	3	247.07	102	10	8.93
NNTR	1894.94	3	631.65	99	13	11.61

Source : Information furnished by Field Directors

⁸⁷ The duties of STPF are to collect and analyze past crime data, intelligence details in respect of vulnerable areas/ villages and offenders, and data on illegal/ legal fire arm details, as well as patrol the high risk areas of the Reserve, participate in anti-poaching operations, detect illegal drawing of power for energizing the fence around the agricultural fields, map areas vulnerable for straying of wildlife in the human dominated landscape, handle the straying cases of tigers/ leopards and monsoon patrolling

Audit observed that:

- The area to be covered by each platoon in PTR was 247.07 sq km whereas in other TRs it was much more with a maximum of 922.84 sq km in MTR.
- In these four TRs, there was vacancy in all the posts of STPF which ranged between four and 12 *per cent*.
- The field directors of the TRs had to prepare monthly reports on the deployment initiatives i.e. area covered, activities relating to protection done by the STPF to the NTCA. The reports were not submitted in any of the four TRs.
- Special trainings from the State Police Department or the Central Paramilitary Forces based on special syllabus for skill development were not organized.

The PCCF (WL) stated that allotment of STPF to TRs was based on protection problems in the area and not according to area of TRs.

The reply was not convincing as in PTR the services of STPF were being used for different wildlife sanctuaries which were outside the tiger reserves. Further it is pertinent to mention that in the period 2012-18, twenty tiger deaths due to poaching were recorded and illicit felling of 21,797 trees was also registered. Thus, the deployment of STPF should also be made according to the area covered for meaningful surveillance.

2.2.10 Support infrastructure

In respect of support infrastructure, Audit observed the following:

- Foot patrolling is considered as one of the most important and a basic strategy for protecting the wildlife and its habitat from poaching, illegal timber cutting, and firewood collection. Every day forest watchers/guards walk along the designated path, combing for unwanted elements and eradicating them if found. These foot soldiers are spread out all over the Protected Areas and at strategic points. As per approved TCPs, Protection Camps (PC) with basic facilities⁸⁸ was required to be built at remote locations for forest watchers/guards to stay.

Audit team alongwith forest officials visited 44 protection camps across six TRs and noticed that in all these protection camps, 10 were temporary structures, six were not fenced, basic amenities such as drinking water and toilet facilities were not provided in 17 camps; wireless communication was not installed in 15 camps; forensic kits were not provided in nine camps and solar light was not given in three camps. Lack of adequate infrastructure in the protection camps had affected regular patrolling of the protected areas.

- Wireless networks are instrumental in protecting the wild life and habitat against illegal activities. It was observed that in two out of six TRs viz. TATR and NNTR wireless sets were insufficient and not in working condition. Wireless communication system was non-functional and the

⁸⁸ Basic infrastructure like a building, drinking water, all weather jackets, beddings, monthly ration, solar power, wireless communication, first aid medical kit, toilets, arms and ammunition, shoes/uniform and training/protective equipment

royalty and license fees on wireless sets were not being paid promptly resulting in avoidable payment of penalty of ₹ 3.12 lakh.

➤ The NTCA norms stipulated that vehicles with four wheel drive mechanism specialized for running on uneven terrains were to be used in wildlife sanctuaries and Tiger Reserves. The department purchased (September 2015 and March 2016) 204 vehicles with two wheel drive features after incurring an expenditure of ₹ 1.76 crore. Out of these, 30 vehicles were deployed in the TRs/WLSs. As only four wheel drive vehicles were suitable in TRs/WLSs, the two wheel drive vehicles purchased may not be suitable for patrolling in reserve areas.

➤ Improving the veterinary facilities had been recommended by MoEF for health care of wild animals and for controlling diseases. It was observed that for six tiger reserves, as against requirement of six Veterinary Assistant Surgeons, only one was available. Therefore, services of Veterinary officers on contract basis were being taken as and when required.

The PCCF (WL) stated that proposal for recruitment of veterinary officers was pending at Government level.

2.2.11 Rehabilitation in Sahyadri Tiger Reserve

The GoM (March 1995) decided to rehabilitate project affected persons (PAP) in 24 villages in four⁸⁹ districts, as these villages were under Chandoli WLS, declared in September 1985. The work of rehabilitation of PAPs in these villages was to be done by Revenue authorities. The work of providing civic amenities was given to Executive Engineer (EE), Warna Canal Division (January 1995) who was already executing the work of Warna dam and also conducting the rehabilitation of PAPs for that purpose.

STR was declared as a tiger reserve in January 2010 which covered the area of Chandoli NP. Till January 2010, rehabilitation of 19 villages was done and five villages in Kolhapur and Satara districts were yet to be rehabilitated (November 2018) due to non-availability of alternate land. The civic amenities⁹⁰ required to be provided to PAPs of 19 relocated villages were not completed. The details are given in **Table 2.2.4**.

Table 2.2.4: Details of rehabilitation and land allotment

District	No. of villages affected	No. of families affected	No. of families rehabilitated	Land required for rehabilitation (ha)	Land allotted (ha)	Balance land required (ha)
Sangli	14	692	616	1261.80	512.93	748.87
Kolhapur	6	596	596	572.65	78.55	494.10
Satara	3	319	0	319	0	319
Ratnagiri	1	177	56	125	18	107
Total	24	1784	1268		609	

Source : Information furnished by Field Director, STR

An amount of ₹ 63.89 crore had been given during the period 2003-2012 by the Forest Department to the Irrigation Department as cost of land acquisition, rehabilitation and providing civic amenities. In March 2016, the

⁸⁹ Kolhapur, Ratnagiri, Sangli and Satara

⁹⁰ Eighteen civic amenities were to be provided

work of rehabilitation was taken up by the forest department after six years since the formation of the tiger reserve. Later, it was decided that funds in respect of civic amenities work at Chandoli would be given to the Irrigation Department after completion and verification of the work.



An additional requirement of ₹ 24.28 crore for the remaining work of rehabilitation worked out (March 2017) was not received (June 2018). Thus, lack of co-ordination between various departments and follow up of rehabilitation work by Forest Department, even after formation of STR in January 2010, led to increase in the cost of rehabilitation and the work was yet to be completed.

The PCCF (WL) stated that process of rehabilitation had been going on since 1995 and it was dependent on availability of funds and land for rehabilitation. It was also appraised that the forest department would pursue this for early completion of rehabilitation.

2.2.12 Tourism in Tiger Reserves

The tiger reserves seek to generate public awareness and support for tiger conservation through regulated tourism. The tourism activities mostly were in TATR and we observed that:

- As per tiger conservation plan of TATR for the period 2008-2017 submitted for approval to NTCA, the operation of 117 vehicles per day in the core area was proposed. With the approval of eco-tourism plan by the State Government for each tiger reserve, revised TCP for operating 122 vehicles per day was proposed. It was noticed that the norm of 122 vehicles per day was exceeded on 93 occasions during 2012-17 and the excess ranged between two and 51 vehicles per day.
- In TATR, Range Office (Moharli), a 14 seater battery operated vehicle was purchased (April 2015) at a cost of ₹ 8.57 lakh for tourism. However, it could be used only on 45 occasions as of March 2018 due to unsuitability of vehicle in difficult terrain and was lying idle (June 2018).
- As per the NTCA guidelines, water holes and cement troughs should not be constructed near tourist routes. The existing cement troughs were to be abandoned and new cement troughs, if needed, were to be constructed away from tourist routes. The guidelines further provided that visitors should keep a minimum distance of more than 20 meters from all wildlife, and cordoning, luring or feeding of any wildlife is prohibited. Minimum distance between vehicles while spotting wildlife was to be maintained at 50 meters. The joint physical verification revealed that water holes at TATR/NNTR/PTR were located close to the tourist route. Visitors did not maintain the prescribed distance during wildlife sighting.

<i>Water holes were located close to the tourist route and visitors were not maintaining a distance of 20 meters from wildlife at TATR</i>	<i>Vehicles not maintaining the distance of 50 meters between two vehicles</i>
	

The PCCF (WL) accepted the facts and stated that carrying capacity of 125 vehicles per day have been approved by NTCA.

The reply of PCCF (WL) is not acceptable as the provisions of NTCA guidelines were violated.

2.2.13 Monitoring and evaluation

Monitoring and evaluation are crucial for tracking the progress of any scheme, programme or a process with a view to detecting deviations for early corrective action and to learn lessons for future planning.

2.2.13.1 Maintenance of Control Forms and Divisional Note Book for plan and strategies of management

As per TCP, Control forms were required to be maintained to record and track management activities and the problems encountered in the process and their magnitude. Three sets of control forms were to be prepared and two sets were to be sent annually to the office of the CCF and Field Director not later than 1st October of each year. A divisional note book at divisional level was also prescribed to contain the important events like arrival of winter water fowl at various wetlands, water availability in lean period, status of health of wild animal, fire damages and poaching of wild animals.

It was observed that control forms were not prepared in any of the six Tiger Reserves. As a result, there was no source of management reference for taking up mid-course corrective measures. Similarly, the divisional note book was not being maintained in the any of the divisions under six TRs.

The PCCF (WL) accepted the facts.

2.2.13.2 Inspection of Subordinate offices

As per article 589 of Bombay Forest Manual all divisional and sub-divisional forest offices were required to be inspected by the Conservator of forest and all range, round and other disbursers offices by the Dy. Conservator of forest/Divisional Forest Officer at least once a year.

During 2012-18, CCF/CF did not conduct any inspection in five TRs except MTR where only two inspections were conducted.

Further, during 2012-18, DCFs/DFOs in TATR and MTR had conducted 21 inspections as against required 288 inspections of their sub-ordinate range offices. In case of NNTR, BTR, PTR and STR no inspection was carried out.

In reply, CCF STR stated (June 2018) that due to paucity of staff the mandatory inspection could not be carried out whereas CCF, NNTR stated being newly formed the TR was under consolidation phase and DCF/DFO office was yet to be established properly.

The PCCF (WL) accepted the facts.

2.2.13.3 Evaluation of activities in Tiger Reserves

There is a dedicated wing in territorial divisions of Forest Department for evaluation of forest development works and to suggest improvements in the implementation of working plans by territorial divisions.

Though there was such dedicated wing in territorial divisions these did not evaluate works executed in TRs. No such dedicated wing in Wild Life Divisions was set up for evaluation of works to assess their quality and standards and to suggest improvements in the implementation of tiger conservation plans in Tiger reserves.

The PCCF (WL) stated that the evaluation of Tiger Reserve was done by NTCA every four years.

The reply was not acceptable as the Forest department was to carry out annual Tiger Reserve Level Management Effectiveness Evaluation in addition to the exercise conducted by the NTCA.

Best Practices

For investigation, control and speedy disposal of offence cases, Wildlife Crime Cell was formed in MTR (October 2013). The Wildlife Crime Cell had laptops and computers for analysis of call data record, online government message facility (eSMS), video statement facility, electronic surveillance custody room (including toilet-bathroom), metal detectors and spy video and audio instruments. As a result of formation of Crime Cell, the offence cases decreased in MTR.

The Wildlife Crime Cell started functioning in October 2013. Wildlife offence cases registered in the year 2014-15 were 16 which decreased to seven in 2017-18. During this period, 13 cases were disposed off against 35 registered cases. Similarly, the number of illicit felling during the year 2014 was 2,666 trees which decreased to 1,431 trees during 2018. There was no reported poaching of tigers from 2014 to 2018.

2.2.14 Conclusion

Apex level interventions for enabling policy decisions and major initiatives for protection and conservation of tigers were found to be inadequate.

The Tiger Conservation plans, which play a significant role in finalizing the management strategy for 10 years were either not being formulated or were formulated with delays. Compartment histories which are important for providing inputs for plan formulation were not being maintained in any of the Tiger Reserves.

Presence of human settlements, and tourist facilities in core tiger habitats caused disturbances to wildlife and also reduced available inviolate space.

The buffer area was fragmented owing to large number of villages, farmlands, highways and railway lines resulting in animal deaths. High tension electric lines passing through tiger reserves were not insulated.

Support infrastructure critical for protection of tiger habitats were found inadequate. Unregulated tourism, particularly in TATR was also a cause of concern.

The monitoring and internal control mechanism required strengthening.

2.2.15 Recommendations

- Focused strategy needs to be chalked out for ensuring safe corridors and adequate eco-sensitive zones. Timeliness and due diligence may be ensured in preparation and implementation of TCPs.
- Human settlements and tourist facilities present in core area may be phased out. High tension electric lines passing through tiger reserves will have to be insulated to avoid tiger deaths due to electrocution.
- Tiger reserves may be brought under unified control to facilitate a focused approach in tiger conservation. Adequate infrastructure needs to be provided to field staff.
- The process of rehabilitation of project affected people needs be expedited.
- Tourism has to be regulated in the core areas by providing Global Positioning System (GPS) in tourist vehicles.
- The monitoring and internal control mechanism required strengthening.

CHAPTER -III

AUDIT OF TRANSACTIONS

- 3.1 State Compensatory Afforestation Fund Management and Planning Authority (CAMPA)**
- 3.2 Implementation of Small Hydro Projects on PPP basis in Maharashtra**
- 3.3 Implementation of Accelerated Irrigation Benefits Programme**
- 3.4 Recurring Loss and Nugatory expenditure**
- 3.5 Fraudulent Payment**
- 3.6 Delay in acquisition of land**
- 3.7 Excess payment**
- 3.8 Excess payment**
- 3.9 Unfruitful expenditure**
- 3.10 Blocking of fund**

CHAPTER III

REVENUE AND FOREST DEPARTMENT

3.1 STATE COMPENSATORY AFFORESTATION FUND MANAGEMENT AND PLANNING AUTHORITY (CAMPA)

Introduction

Forest land is diverted for facilitating developmental activities for non-forestry purposes like construction of power projects, irrigation projects, roads, railways, schools, hospitals, rural electrification, telecommunication, drinking water facilities and mining.

Government of India (GoI), subsequent to the orders of Hon'ble Supreme Court (October 2002) created (April 2004) the Compensatory Afforestation Fund Management and Planning Authority (CAMPA). It was also directed to centrally pool the money recovered on behalf of the said Authority, lying with the States and Union Territories, into an adhoc CAMPA constituted for the purpose till the CAMPA became operational.

In accordance with the directives contained in the guidelines (July 2009) (Guidelines) by Ministry of Environment and Forests (MoEF), Government of India (GoI) on State CAMPA, the concerned State Forest Department (SFD) would work out the amount¹ required for Compensatory Afforestation (CA), the Net Present Value (NPV) and costs for fulfilling any special conditions laid down by the GoI and SFD at the time of approval of diversion of forest land. The amount is deposited by the Project Agency (User Agency) in the adhoc CAMPA account maintained at New Delhi. The guidelines required the setting up of State level CAMPA for receiving CAMPA funds from the above account and also prescribed procedures for utilization of the CAMPA funds. The GoM constituted (July 2009) the Steering Committee and the Executive Committee for setting up of Maharashtra State CAMPA (State CAMPA). The GoM further had accorded sanction (January 2010) to open an account in the name of Executive Committee of State-CAMPA. The funds which were received from the implementation of provisions of the Forest (Conservation) Act, 1980 (FC Act, 1980) which included other funds already received and had remained unspent, funds received/transferred from the Central Government or the State Government by special orders or guidelines would be deposited in the account of State CAMPA.

GoM Resolution (January 2010), for constituting the Governing Committee for setting up of the State CAMPA under the Chairmanship of Chief Minister

¹ The State Forest Department (SFD) had a rate chart from 2009-10 for the plantation models existing prior to the issue of November 2013 rates. The SFD in November 2013 issued ready reckoner rates for five plantation models for recovering the Compensatory Afforestation (CA) amount from the User Agencies. If the proposal of CA was of model 1 to 4, the amount shall be calculated based on the rates of model 1. The rates of model 5 shall be applied only in cases where the alternate land provided by the User Agency was completely barren with no irrigation facility and the User Agency was willing to pay the cost as per model 5

of State was issued with the Minister of Forests, Minister of Finance and Minister of Planning amongst others as members.

GoI enacted the Compensatory Afforestation Fund Act, 2016 which came into force from August 2016. The Act has, however, not been implemented in the State pending finalisation of CAMPA Rules by GoI (October 2018).

Organizational Setup

Principal Secretary (Forest) is responsible for the overall administrative control of the State Forest Department (SFD) and is assisted by Principal Chief Conservator of Forests (HoFF²), Nagpur. The proposals for diversion of forest lands for various projects right from processing till approval are done by a Nodal wing headed by an Additional Principal Chief Conservator of Forest cum Nodal Officer in the PCCF (HoFF). The State CAMPA is headed by an Additional Principal Chief Conservator of Forests (APCCF), CAMPA who is responsible for the preparation and implementation of Annual Plan of operation (APO) and other day to day activities. Chief Conservators of Forests (CCFs) are head of the circles and assisted by the Divisional Forest Officers (DFOs) or Divisional Conservators of Forests (DCFs). At the Range level, Range Forest Officers are responsible for executing the CA works. State CAMPA functions through a three-tier committee hierarchy:

- Governing Body headed by the Chief Minister of the State, mandated to lay down the broad policy framework for functioning of State level CAMPA and reviews its working from time to time.
- Steering Committee headed by the Chief Secretary of the State, mandated to lay down and approve rules and procedures for the functioning of the body and its Executive Committee. Its responsibilities included monitoring utilisation of State CAMPA fund, approving the APO, the annual reports and audited accounts of the State CAMPA.
- Executive Committee headed by the Principal Chief Conservator of Forests (HoFF) of the State mandated to prepare the APO of the State for various activities, submit it to the Steering Committee before end of December for each financial year and supervise the works being implemented out of funds released from the State CAMPA. It was also responsible for ensuring proper auditing of both receipt and expenditure of funds.

Process and Fund Flow

According to para 4.2 (i) of guidelines issued (February 2004) by MoEF under the FC Act, 1980 for diversion of forest land, forestry clearance is to be given in two stages;

➤ At first stage, the proposal is to be agreed to in principle (Stage I). Conditions relating to transfer, mutation and declaration of a Reserve Forest or Protected Forest under the Indian Forest Act, 1927 of equivalent non-forest land for compensatory afforestation and funds for raising compensatory afforestation thereof, are stipulated at this stage.

² Head of Forest Force

➤ After receipt of report from the State Government regarding compliance with the stipulated conditions, formal approval by MoEF under the Act is issued, also called the second stage of clearance or final clearance.

Ad-hoc CAMPA was to release funds based on APO received from respective State or UTs. These plans were to be formulated by a State Level Executive Committee and approved by a State Level Steering Committee before being sent to Ad-hoc CAMPA. The funds released were then to be disbursed by the Nodal Officers amongst the divisions³ for implementation of APOs.

Besides the above, conditional works as described in paragraph 3.1.5 were also undertaken.

Audit Scope and Methodology

Audit test checked records of APCCF cum Nodal Officer, APCCF (CAMPA), three out of 11 territorial circles⁴, three divisions in each selected circle, two divisions⁵ each in Nagpur and Amravati Wild Life circles, CCF (Research, Education and Training) and Publicity Information Officer, Nagpur. The selection of circles and divisions was made on the basis of allocation of funds from State CAMPA. Out of total allocation of ₹ 657.47 crore to all the circles, audit covered three circles which were allocated funds amounting to ₹ 391.76 crore.

The audit was conducted between January 2018 and June 2018 and covered a period of five years from April 2013 to March 2018. Cases of diversion of forest lands approved prior to the audit period were scrutinized only where the CA works against these diversions were proposed and undertaken in the APO during the audit period.

Audit evidence was also gathered through photographs taken during field inspections undertaken jointly with officials of the SFD. The findings on the subject matter were issued (July 2018) to the Government; the replies of the Government were received (December 2018) and incorporated appropriately.

Audit objectives

The audit was conducted to assess whether

- Proposals for diversion of forest land for non-forest use were processed as per extant guidelines;
- Planning for compensatory afforestation through the mechanism of APOs was done effectively to ensure timely grounding of CA works;
- The state CAMPA funds were utilized economically, efficiently and effectively for purposes of compensatory afforestation;
- The monitoring of plantations through inspections by DCFs to ensure quality of execution of CA works was effective.

³ The CA works in the APO are proposed by the circles by collecting the information from the Divisions under them. The approved CA works in the APO are executed by the Divisions and their respective Ranges

⁴ Dhule : DCFs Dhule, Jalgaon and Yaval; Thane : DCFs Thane, Dahanu and Shahapur and Nagpur: DCFs Bhandara, Gondia and Wardha

⁵ Nagpur Wild Life: Pench Tiger Reserve and Bor Wild Life Sanctuary; Amravati Wild Life: DCF, Gugamal Wild Life Division and DCF, Akot Wild Life division

Audit Findings

The audit findings include deficiencies in the system of diversion of forest land, deficiencies in the preparation of Annual Plan of Operation, taking up of afforestation work in the alternate lands, taking up of conditional works and deficiencies in the system of accounting of CAMPA funds which are detailed in succeeding paragraphs.

3.1.1 Data on diversion of Forest Land and CA works

According to the provisions of Para 3.2 of the guidelines issued under Forest Conservation Act, 1980, CA was to be done over equivalent area of non-forest land (NFL). Further, the NFL should be identified contiguous to or in the proximity of Reserved Forest or Protected Forest. In the event that NFL was not available in the same district, it may be identified anywhere else in the State. Where NFL was not available or available in less extent, CA may be carried out over degraded forest⁶ twice in extent to the area being diverted or to the difference between forests land being diverted and available NFL, as the case may be.

The NFL which were transferred and mutated in favor of the SFD for the purpose of CA shall be notified by the State Government as Reserved Forest (RF) or Protected Forest (PF) under relevant section of the local Forest Act. The Nodal Officer shall report compliance within a period of six months and shall send a copy of the original notification declaring the NFL as RF or PF to MoEF for information and record.

In the State of Maharashtra 1,671 cases involving 65,363 hectares (ha) got stage II approval as of March 2018.

It was observed that;

- The information of NFL or degraded forest lands provided for CA against 1,671 cases was neither consolidated by APCCF cum Nodal Officer nor available with Chief Conservator of Forests.
- APCCF (CAMPA) was responsible for implementation of APO. The case wise information on CA works due, proposed in the APO and completed was not available with APCCF (CAMPA).
- There was no information sharing between APCCF cum Nodal officer, responsible for processing of forest land diversion cases and APCCF (CAMPA), responsible for taking up afforestation work in alternate lands identified at the time of approval of diversion cases using CAMPA funds, which could have been used in preparation of APO.
- The test-checked circles and divisions were also not maintaining project wise details to show the alternate lands provided for afforestation against the diverted forest lands and the phase wise expenditure incurred on pre-plantation operations (PPOs), first year operations and second year to 10th year operations on such alternate

⁶ Degraded forest is a secondary forest that has lost through human activities the structure, function, species composition or productivity normally associated with a natural forest type expected on that site

lands. The details of NFL or degraded forest land declared as RF or PF were also not available.

- A monthly progress return (MPR) containing the details of CAMPA funds collected from the User Agencies, the shortfall in collection of NPV *etc.* was being submitted by the circles to APCCF (CAMPA) and APCCF cum Nodal Officer. These monthly returns were found to be incomplete as the MPR did not mention the alternative land allotted, the status of CA works done, up to date expenditure incurred *etc.* Besides, the cases (After 2002) shown by Nodal Officer in respect of three test-checked circles was 1,011 whereas the MPR submitted by the circles showed 374 cases. Thus, all the cases of diversion were not found in the statement.

The absence of database regarding complete status of CA works against the total diverted forest land and lack of monitoring on undertaking of due CA works resulted in cost escalation as mentioned in **paragraph 3.1.2.2**.

The Government stated that a comprehensive database covering all aspects of Forest (Conservation) Act 1980 has been created. The process of filling up the data by circles and divisions in the database was in progress (December 2018).

Further, in the three selected Circles, audit test-checked 104 cases in which forest land admeasuring 2,818.684 hectares was diverted for non forestry purposes during the period 2013-18. Against the diverted forest land, CA work was proposed to be taken up in 3,243.22 hectares land. Of which, in 1,920.22 hectares (49 *per cent*) land, CA works (91 cases) were in progress and in the remaining 13 cases, 1,323 hectares (41 *per cent*) land, no CA works were taken up (March 2018).

3.1.2 Approval for diversion of forest land

3.1.2.1 Status of proposals for diverting forest land

In the State as of March 2018 out of 4,166 proposals received, 1,671 cases involving 65,363 hectares got stage II approval. The status of cases for diverting forest lands as of March 2018 in the three test checked territorial circles is given in **Table 3.1.1**.

Table 3.1.1: Status of diversion of forest land in test-checked circles

(Number of cases)

Circles	Position of forest land diversion cases as on March 2018					
	Total	Rejected or closed or withdrawn or revoked	Stage II Approved	Pending		
				Stage I approval granted	Stage I approval pending	Total
Nagpur	625	93	276	69	187	256
Thane	869	146	304	75	344	419
Dhule	591	87	189	43	272	315
Total	2085⁷	326	769	187	803	990

Source : Information collected from APCCF cum Nodal Officer

⁷ In 2,085 cases 95,280 ha forest land is involved and in 769 Stage-II approved cases 42,832 ha forest land is involved

Out of 2,085 cases, 769 had got stage II approval, 326 cases were revoked or rejected or withdrawn and balance 990 cases were found pending at various levels. Of 187 cases of stage-I approval, 93 are pending for a period ranging between five years and 25 years and remaining 94 cases for period less than five years. Thus, these 93 cases were liable to be summarily revoked in terms of Clause 4.2 of Forest Conservation Act, 1980 which stipulated that, in cases where compliance of conditions stipulated in the in-principle approval was awaited for more than five years from the State Governments, the in-principle approvals would summarily be revoked.

It was seen in these 93 cases, the test checked circles neither recorded anything about revocation nor took any further action to obtain a fresh proposal from user agencies (which should be considered denovo). Moreover, of the 93 cases, in 26 cases ₹ 4.40 crore had been deposited in adhoc CAMPA.

The Government stated that responsibility of revocation of more than five years old stage I approved cases rests with MoEF, GOI. However, the details of cases revoked by MoEF, GOI till date were not furnished.

Encroachment on forest land in an unrevoked case is discussed below.

In a proposal for diversion of 0.38 hectare of protected forest land for construction of petrol pump and service station in favour of Indian Oil Corporation Limited (User Agency) in Thane division, Audit observed that 1.15 hectares of forest land had been encroached since long. The MoEF had accorded (September 2009) stage I approval for diversion of only 0.38 hectare of forest land with the condition that the balance encroached area (0.77 hectare) should be surrendered by the User Agency to the SFD. However, the User Agency had not fulfilled the conditions of surrendering the encroached land and therefore stage II approval was not accorded (April 2018). Action taken on User Agency for encroachment or illegal utilization of the forest land was not available with SFD. Thus, the User agency was using the forest land without any legal rights.

Government stated that action was being taken to take over the possession of encroached land (0.77 hectare).

The fact remained that the case remained unrevoked and the user agency continued to utilize 0.38 hectare without obtaining stage II approval even after lapse of nine years from the date of stage I approval.

3.1.2.2 Delay in granting Stage II approval

The time period between stage I approval and stage II approval as prescribed in MoEF's notification (March 2014) was four and half months.

It was observed that time taken to grant stage II approval overshoot the prescribed period in many cases for reasons attributable to the User Agencies, SFD and MoEF. The User Agencies had to credit the cost of CA calculated by the SFD at the time of complying with the conditions of Stage I. There were no provisions in the FC Act or guidelines for recovery of updated cost of CA in respect of cases which were delayed for Stage II approval.

In test checked circles, out of 769 cases, 89 cases got stage II approval during 2013-18. Out of these 89 cases, in 46 cases the delay in according stage II

approval was between five months and 45 months. In such cases, the cost of CA collected after stage I approval was bound to increase.

Audit had conducted an analysis of 12 cases in eight test-checked divisions (except Gondia) and found that in six cases the differential cost due to delay in granting stage II approval worked out to ₹ 2.52 crore.

We also observed that in 24 cases where CA work was completed, the expenditure incurred was ₹ 18.45 crore which was ₹ 11.19 crore more than the cost of CA (₹ 7.26 crore) recovered from the User Agencies.

It is pertinent to mention that under Gondia division, differential cost wherever the stage II approval got delayed was recovered and in one such case the differential cost (₹ 8.06 crore) due to time lag of 14⁸ months in stage II approval was recovered from User Agency.

Government stated that in cases where the user agency failed to deposit the demand, fresh demand as per the new rates in tune with ready reckoner of new financial year were given to the user agency and they had to pay such difference which may arise due to delay. It was also stated that adequate mechanism was in place to plug the differential cost in cases of time lag in stage II approval.

The reply was not acceptable as in the test-checked six cases the differential costs were not recovered till the date of audit. The Government also did not mention the recovery of differential amount in these six cases. This indicated that the adequate mechanism which was in place as stated by the Government was not effective.

3.1.3 Preparation of Annual Plan of Operations

The State Forest Department adopted the bottom up approach for preparation of APO to ensure need based realistic planning. Proposals from the implementing agencies (Field Offices) were called to prepare the APO. The proposals for taking up of CA works with certification required by DFO (in prescribed proforma) obtained from the field were consolidated, shared with the subject matter specialists in the office of the PCCF (HoFF). The resultant draft APO was put up before the Executive Committee and onward for approval. In addition to CA works, the conditional works stipulated by MoEF for which the cost was separately paid by User Agencies to SFD, were also included in APO.

3.1.3.1 Defects in inclusion of CA works in APO

As per the Rule 12 (2) of State CAMPA guidelines (July 2009), after receipt of the money, State CAMPA shall accomplish the afforestation for which money was deposited in the Compensatory Afforestation Fund within a period of one year or two growing seasons after project completion, as may be appropriate. Thus, it was expected that CA works should be started within two years from the stage II approval of the project. In case, land provided for CA was found unsuitable at the time of taking up the Pre-Plantation Operation

⁸ Stage I approval : February 2009 and Stage II approval : April 2010

(PPO⁹) works, then, alternative sites proposed against such unsuitable land were required to get approval from MoEF or REC¹⁰.

In three test-checked circles, audit scrutiny of 104 cases (out of total 769 cases sanctioned during 2013-18) revealed the following-

- In all the 104 cases, PPO works were proposed in APO during 2013 - 18. The alternate lands provided for CA in 13¹¹ cases of forest land diversions were found unsuitable (1,323 hectares was found unsuitable out of 1,804 hectares) at the time of taking up the CA work. This was mainly due to inadequate survey and incorrect certification by the forest officials at the time of submitting the proposal for stage II approval. The proposals for new alternative lands were submitted to MoEF; the approval for which was awaited (October 2018). Out of these 13 cases, in five cases, the PPO works were proposed repeatedly in the APOs without ensuring the suitability of the lands resulting in non-execution of the PPO works and surrender of funds allocated for the works as shown in **Appendix 3.1.1**. Thus, the existing system of survey and verification of suitable land was evidently inefficient.

Though the concerned CCFs furnished the reasons for non-execution of PPO works, the comments from Government in this regard was awaited.

- Further 28 out of 104¹² PPO works in the APO were found included with a delay ranging from one to 27 years¹³ from two years after the date of stage II approval (**Appendix 3.1.2**). PPO works in respect of one such case of diversion of forest land (Kar River Project) which were approved in 1988 were proposed in the year 2017-18. This delay had resulted in cost escalation of ₹ 30.79 crore. As the CA cost had already been recovered from the User Agencies, this extra cost was required to be borne by the SFD.

Government stated that only in few cases there was delay in taking up PPO works due to unsuitability of lands. Fresh detailed instructions had been issued (September 2018) to avoid such delays.

- In four cases of Gondia, Shahapur and Dahanu divisions, the CA works were not proposed in APO because the land provided for CA

⁹ The Compensatory Afforestation works commences with the Pre Plantation Operations. The Plantation area is decided based on the availability of area, funds, soil condition, etc. Coupe area having below 0.4 crown density shall be selected for taking up plantation. Once the plantation site is decided, the area shall be demarcated on ground. Within the selected plantation area, grids of 100m x 100m shall be laid down. Trial pits up to depth of 60 cm shall be dug as per the available soil depth. One trial pit shall be dug in each grid. Zone I, II and III are decided as per the soil depth. Based on this information, treatment map is prepared

¹⁰ Regional Empowered Committee shall be constituted at each of the Regional offices and shall consist of three members namely (i) the Regional Principal Chief Conservator of Forests (Central), Chairperson, (ii) three non-official members who shall be experts one each in mining, civil engineering and development economics and (iii) the Conservator of Forests or the Deputy Member Conservator of Forests in Regional Office, Member Secretary to decide the proposals involving diversion of forest land upto 40 ha other than proposals involving mining and encroachments

¹¹ Nagpur - Six cases (963 ha) and Thane - Seven cases (402 ha)

¹² Dhule - 13; Nagpur - 57 and Thane - 34

¹³ One to Five years -20 cases; Five to 10 years - Five cases; and 10 years and above- Three cases

was outside the jurisdiction of the circle concerned. In two¹⁴ such cases of Shahapur division, against the diversion of forest lands, CA lands of 835.10 hectares were provided in four¹⁵ different divisions. The division which processed the diversion case and other divisions under whose jurisdiction the CA lands were provided were responsible for timely execution of CA works, the PPO works on these lands were not proposed in the APOs by either of the divisions. The DCF, Shahapur stated (April 2018) that his division had no role as the CA lands fell under other divisions.

In three out of four cases, the delay in taking up of CA works had led to cost escalation of ₹ 11.42 crore. In the fourth case in the Gondia Division, Stage-II approval was not granted by the MoEF till date.

Government did not furnish any reply.

3.1.3.2 Irregular sanction and expenditure from CAMPA Funds

National CAMPA Advisory Council directed (June 2010 and January 2012) that expenditures of administrative nature, expenditure on strengthening infrastructure at headquarters, petrol, oil and lubricant expenditure on vehicles, construction, repairs and renovation of office, residential building, forest rest house, ministerial staff quarters *etc.* above RFO level and purchase of vehicles-particularly for the use by officers *etc.*, were not permissible out of the CAMPA funds. National CAMPA Advisory Council (January 2015) allowed not more than 15 *per cent* NPV component to be used for items which were not allowed under CAMPA guidelines.

It was observed in the three selected circles that the 65¹⁶ works of construction of administrative buildings, repairs and maintenance of forest guest houses, DCF quarters were sanctioned in the APOs and an expenditure of ₹ 10.34 crore was incurred which was not admissible under CAMPA.

Further, in Dhule circle, as against sanction of ₹ two crore in the APO of 2016-17, an amount of ₹ seven crore was deposited (February/March 2017) with the Public Works Division, Dhule towards construction of circle office administrative building by CCF (T), Dhule. This amount of ₹ five crore was sanctioned (March 2017) by the APCCF (CAMPA) which was irregular.

Government stated that the expenditure was incurred from 15 *per cent* of Net Present Value component as allowed by Adhoc CAMPA and from the interest earned on CAMPA fund.

The reply was not acceptable as the act and guidelines do not provide for utilization of interest for other than specified purposes. Whenever a fund is created, interest necessarily has to be ploughed back unless specified otherwise. Further, the Government did not provide details of expenditure incurred from 15 *per cent* NPV component.

¹⁴ Construction of Mumri Dam and 765 Aurangabad – Padghe Transmission line

¹⁵ Aurangabad, Ahmednagar, Junnar and Sangamner

¹⁶ Thane – 35 works , Nagpur –Three works, Dhule – Seven works and Pune-20 works

3.1.3.3 Delay in submission of APOs

As per the guidelines contained in GoM, Revenue & Forest SFD Resolution (September 2009), the Executive Committee was to submit the APOs to Steering Committee before end of December for each financial year and obtain the Steering Committee's concurrence for release of funds. The approved APOs were to be submitted to MoEF, New Delhi for release of funds from Adhoc CAMPA.

It was observed that the APOs were approved by the Executive Committee with a delay ranging between one month and nine months from the scheduled month of December of each year for submission to Steering Committee as mentioned in **Appendix 3.1.3** which was attributing to the overall delay in taking up of CA works.

Government while accepting the fact stated that the APO usually gets delayed since it is a laborious task where information is sought from various implementing agencies in the field. However, the funds were usually received in time and, therefore, the delay did not actually affect the timely release of funds.

The fact remained that the timely submission of APOs as per guidelines was not adhered to.

3.1.3.4 Plantation taken up under State Schemes covered subsequently under CAMPA

According to paras 2 and 3 of CAMPA guidelines, the plantations are proposed only on the compensatory land sanctioned against the forest land diverted for non-forest purpose. Further, the afforestation activities are carried out by collecting the cost of afforestation from the User Agencies as per the ready reckoner rates.

We observed that CCF (T), Dhule had demanded additional funds of ₹ 2.49 crore for CA works during the year 2012-13. The plantations for which additional amounts were demanded pertained to the period of 2010-11. These plantations were under State Afforestation Scheme and were not part of any project of diversion of forest lands to user agencies. This was subsequently transferred (2012-13) under CAMPA. The Government sanction for transferring of these afforestation works from State Scheme to CAMPA were not available at the circle office. But, the works were found incorporated in the approved APO.

At the time of taking up the afforestation work under State scheme, the plantation model proposed was 400 plants per hectare which was prevailing at that time. However, after getting these plantations covered under CAMPA, the divisions with the directions (April 2011) of the CCF (T), Dhule converted the plantation model to 1,600/2,500 plants per hectare. Consequently, there was cost escalation which resulted in the demand for additional amount of ₹ 2.49 crore on CAMPA. Executive Committee directed (December 2012) that responsibility needed to be fixed at the field level for non-adherence to the prescribed model. However, no action was taken against any officers (October 2018).

Thus, decision of the CCF (T) to cover the balance work of plantations taken up from State schemes under CAMPA was irregular which resulted in extra burden of ₹ 2.49 crore on CAMPA Funds.

Government stated that these plantations were not taken up under State scheme but were raised through CAMPA funds only. While accepting the change in the model, Government stated that additional fund was demanded for meeting the expenditure due to change in model.

The reply was not acceptable as the plantations were initially taken up under State Scheme till March 2011 as reported by CCF (T), Dhule in November 2012, while demanding funds.

3.1.4 Irregular execution of CA works in protected forest area

In accordance with Forest Conservation Act, 1980, the SFD has to submit a certificate of suitability of the lands proposed for CA by the User Agencies at the time of compliance for Stage II approval. Similarly, where a land proposed by the User Agencies was found unsuitable for CA subsequently after the Stage II approval, CA on alternate lands in place of original identified land will have to be got approved from the SFD and MoEF before any CA works are undertaken. In the following cases, the CA works were found executed by the division without obtaining approval of the MoEF.

3.1.4.1 Diversion of 116.03 hectares of forest land for Bhimalkasa Minor Irrigation Project

For the Bhimalkasa Minor Irrigation Project in Bhandara division, 116.03 hectares of forest land was approved (July 2015) by MoEF for diversion against which alternate double degraded land of 232.06 hectares for CA was approved in Mouza Khamba. At the time of taking up the CA works, the division found that only 74.06 hectares was suitable for plantation. In order to compensate for the remaining 158 hectares of unsuitable land, the division proposed alternate lands in seven¹⁷ different villages. However, the division without submitting the proposal to APCCF for obtaining the approval from MoEF for taking up CA on alternate land, proposed the PPO works in the APO and executed the CA works on the alternate lands.

The DCF, Bhandara stated that the CA works on 232.06 hectares was taken up during the year 2014-15 and during survey it was observed that there was natural regeneration in the said site and hence alternate sites were proposed for PPO works in the APO. The reply was not convincing as the CA works on alternate sites were proposed and taken up without the approval of State Government or MoEF. Government accepted the facts.

3.1.4.2 During field visit to one (Mokhe plantation site of 50 hectares) of the plantation site, out of 158 hectares alternate sites, as stated above, it was observed that the said land was not a degraded forest land but was a protected forest on which afforestation was already done by Social Forestry, SFD. However, the division while submitting the monthly progress reports (March 2017) to the circle had shown plantations in entire 50 hectares at a cost of ₹ 66.56 lakh which was factually not correct. Out of the proposed

¹⁷ Mokhe-50 ha; Savargaon-18 ha; Jamnapur-10 ha; Khairlanji-Five ha; Ukara-25 ha; Sangadi-30 ha and Umri-20 ha

50 hectares of land, plantation was undertaken only in 38 hectares due to encroachment of some lands by the nearby village and the land was found unsuitable for plantation. Temporary fencing was found in the plantation site though huge quantity of chain links were procured and were found lying in the Range Office campus.

Government accepted the facts and stated that with regard to non-installation of chain links necessary action would be taken against the then DCF.

3.1.4.3 Diversion of 16.226 hectares of forest land for 765 KV Raipur Pooling Station, Wardha

The PPO work and first year operation for compensatory afforestation in 13.25 hectares in Rajegaon Beat in compartment Numbers 307 to 309 was proposed in the APO of 2015-16 and 2016-17 against the diversion of forest land for 765 KV Raipur Pooling Station, Wardha. However, in the APO of 2017-18, the second year operations were proposed in compartment numbers 317, 637 and 638 instead of the compartment numbers proposed.

During the site visit to compartment numbers 307 to 309, it was found that the plantation work had been carried out in the area under Outside Tribal Sub-Plan (OTSP) scheme and the division was forced to change the site and carry out the plantation work at compartment numbers 317, 637 and 638. However, the reasons for change of compartment numbers were not available on record (Plantation register, measurement book).

We also observed that in compartment numbers 317, 637 and 638, a dense forest existed because of previous plantations undertaken on the said site. The plantations under CAMPA were found done in a scattered area between the existing dense forests in these compartments (Photograph shown below) and therefore, could not be identified, though the plantation register and measurement books showed that 28,497 plants were planted as against 33,125 plants.

The photographs of the site taken on 18th January 2018 are placed below.



Plantation at Compartment Nos 317, 637 and 638

Government stated that detailed explanation was called for from CCF (T), Nagpur.

3.1.4.4 Diversion of 117.28 hectares forest land for construction of 220 KV/DC Borivali Boisar and Kharagar-Kalwa transmission line

MoEF had accorded approval (September 2012) for diversion of 117.28 hectares forest land for construction of 220 KV/DC Borivali Boisar and Kharagar-Kalwa transmission line in Mumbai, Thane and Palghar Districts. For CA purpose, 161.405 hectares double degraded forest land in

Dahanu division and 73.17 hectares degraded forest land in Thane division was provided.

The degraded land proposed in Thane division was not found suitable and therefore, CCF (T), Thane had proposed (January 2016) alternate land of 73.17 hectares in villages Talegaon, Alikiwali and Padgha. The proposal was forwarded (March 2016) to MoEF through SFD for approval in February 2016, the approval of the same was awaited.

During field visit to the plantation site at Alkiwali, Audit observed that the site was already having a dense forest cover and the density of forest was recorded in the plantation register as 0.4. According to the guidelines issued by SFD, the lands having forest density of less than 0.4 should be proposed for CA. The plantations done were also on available open patches of area which could not be easily identified. The growth of the plants (now in 2nd year) was also hampered due to surrounding thick trees. Audit also observed that there was free movement of cattle in the vicinity of the site.

Government accepted the facts and stated that plantation would be revived by taking necessary steps.

3.1.5 Execution of Conditional Works

MoEF while according approval to the forest land diversions puts certain conditions such as carrying out the work of teak irrigated plantations, safety zones plantations, canal side plantations, medicinal plants plantations, catchment area treatment, soil moisture conservation, survey demarcation, barbed wire fencing *etc.* either by User Agency or by SFD from the cost for such work credited by User Agency. The circle and APCCF (CAMP) should ensure inclusion of conditional works in the APO. The execution of conditional works rests with the division concerned.

Audit observed that the conditional works as described below were either not executed or executed in contravention of the directions specified in the approval.

3.1.5.1 Conditions relating to plantation of medicinal plants

The MoEF, GoI while according approval to three¹⁸ projects of diversion of forest land for transmission lines in Gondia and Dhule division, had inserted a condition that the user agencies shall prepare a scheme of plantation of medicinal plants on the Right of Way¹⁹ wherever possible after completion of the stringing work in consultation with the SFD.

The medicinal plantation, in Gondia Division was to be executed in right of way in 101 hectares. However, the plantation was done only in 20 hectares which was also not done in the Right of Way as seen during field visit. In the remaining two projects of Dhule division; no plantation was done even after lapse of four to six years.

Government stated that explanation was called for from CCF (T), Nagpur.

¹⁸ Gondia - 1) Raipur to Wardha 400 KV D/C Transmission line; Dhule - 2) Solar Photo Voltaic Power Project in Dhule (325 Ha); and 3) Dhule –Vadodara 765 KVDC Transmission Line

¹⁹ A right of way is a type of easement granted or reserved over the land for any purpose

3.1.5.2 Conditions relating to installation of bird deflectors and circuit breakers

In two projects²⁰ in Dhule and Wardha divisions, MoEF stipulated that the User Agency should provide at its cost, suitable bird deflectors which were to be fixed on upper conductor of transmission line at suitable interval to avoid bird hit and install circuit breakers at suitable places besides maintaining necessary ground clearance to prevent electrocution of wild animals. However, the records indicating that User Agency had installed the bird deflectors and circuit breakers were not available in the division.

A preliminary offense report was found registered (November 2017) in case of project in Wardha division stating that around 1.65 hectares of the plantation site was burnt to ashes due to bird hit on the same survey number. This indicated lack of compliance to the conditions specified by the MoEF.

In reply, the CCF (T), Dhule stated (March 2018) that the matter had been taken up with the User Agency. DCF, Wardha stated that RFO had been directed to take action. Government did not furnish any reply.

3.1.5.3 Conditions relating to creation of habitat or home for avifauna

In Shahapur and Thane divisions, while according approval to 765 hectares Aurangabad-Padghe Transmission Line project, MoEF had put a condition for creating and maintaining alternate habitat or home for the avifauna²¹, whose nesting trees were to be cleared in projects. The user agency had deposited ₹ 7.28 lakh in May 2016, however, no work was executed.

In reply, the DCF, Shahapur stated that estimate for the said works was submitted to the technical authority for approval which was awaited (October 2018). Government did not furnish any reply.

3.1.5.4 Conditional work to be undertaken by the Wild Life division

MoEF accorded (May 2015) approval to a project for widening into four lanes of the Mansar-Khawasa section of NH-7, with the condition that the National Highway Authority of India (NHAI) would assist the State Government in conservation and preservation of flora and fauna of the area in accordance with the wild life conservation plan prepared by the Chief Wildlife Warden (CWLW) of the State. The structure for the safe crossing and providing corridors for wildlife was being dealt separately. The CWLW prepared the plan which envisaged identifying forestry and wild life management activity necessary to endure the impact of the road activity and were thus necessary in general for the conservation of flora and fauna and for the specific habitats. The plan was to be implemented during a period of five years from 2015-16 to 2019-20 by CF & FD, Pench Tiger Reserve (PTR) and CCF (T), Nagpur in

²⁰ Dhule –Vadodara 765 KV DC Transmission Line and Wardha-Warora 400 KV Transmission line by MSEDCL

²¹ The birds of a particular region, habitat or geological period

their respective areas as per the activities²² identified. An amount of ₹ 4.97 crore was remitted (February 2015) by the NHAI into adhoc CAMPA.

The above works were not included in the APO of 2015-16. The activities for ₹100 lakh were approved in the APO of 2016-17 of which ₹ 55 lakh was released but not utilised. During 2017-18, ₹ 99.40 lakh was approved in the APO again for same activities and ₹ 59.50 lakh was released from which ₹ 42.49 lakh was spent. The balance amount of ₹ 17.01 lakh was surrendered. During the year 2018-19, balance items were sanctioned in the APO at a cost of ₹ 84 lakh except for corridor maintenance. No funds were released till May 2018.

The plan which was proposed to be implemented during the period of five years from 2015-16 to 2019-20 has not yet taken off. As against the funds of ₹ 4.97 crore obtained from NHAI, amount released during the period 2015-19 was only ₹ 59.50 lakh (11.97 *per cent*) and the expenditure incurred was only ₹ 42.49 lakh (nine *per cent*). Thus, non-implementation of the works proposed in the plan defeated the purpose of conservation of flora and fauna.

The CCF and FD, PTR stated (June 2018) that due to time constraint, the funds could not be utilised during 2016-17 and 2017-18. In future, action would be taken to utilize the funds in the same financial year. Government did not furnish any reply.

While according approval (November 2015) to the project²³ in PTR division, the MoEF had stipulated that the User Agency shall mitigate the side effects of the project on wildlife by providing drinking water facilities to the wild life at 20 different locations in buffer zone area; each zone should have (i) Borewell (₹ one lakh each); (ii) A saucer shaped water body of capacity 4,000 litres (₹ 0.50 lakh each) and (iii) a Submersible one HP solar Water Pumping System (₹ 2.50 lakh each).

These works were proposed in the APO of 2017-18 and ₹ 85 lakh was sanctioned and released to PTR division. The division had incurred an expenditure of only ₹ 35 lakh on provision of bore wells and saucer shaped water body and the work of providing a Submersible one HP solar Water Pumping System in 20 locations was not executed and the amount of ₹ 50 lakh released for the same were surrendered in March 2018. Further, the unexecuted work of providing a Submersible one HP solar Water Pumping System was not included in the APO of 2018-19. Thus, the water body was not created.

The CF and Field Director, PTR stated (June 2018) that due to delay in e-tendering process, the work could not be executed in the financial year 2017-18. Further, SFD had not demanded any separate funds in the APO of 2018-19 for execution of the above work. The fact remained that the work

²² Works to be carried out in Corridor - Check Naka and Maintenance; Habitat/Meadow improvement to increase food availability for herbivores; Corridor Maintenance; Maintenance of Water Holes; and Water Source creation

Works to be carried out in Buffer zone - Habitat/Meadow; Maintenance of Water Holes; Water Source Creation; Anti-poaching camp and check naka creation; and Protection Hut

²³ Khindsee feeder canal in Village Pali and Satrapur

included in the APO for providing of submersible HP was not done, though included in APO 2017-18. Government did not furnish any reply.

3.1.5.5 Compliance with other conditions

While according approval to the project of 765 hectares Aurangabad Padghe Transmission line in Shahapur division, the MoEF had inserted a condition that *“the boundary of the diverted forest land shall be demarcated on ground at the project cost by erecting four feet high reinforced cement concrete pillars each inscribed with its serial number forward and back bearing the distance from pillar to pillar”*. The User Agency had deposited an amount of ₹ 17.59 lakh for this conditional work in May 2016. However, no work was executed though a provision of ₹ 3.38 lakh was there in APO of 2017-18 and the same was made available in July 2017.

In reply, DCF, Shahapur stated (February 2018) that the estimate for the said works was submitted to the technical authority for approval which was awaited (October 2018). Government did not furnish any reply.

- Diversion of 5.264 hectares of forest land for Construction of Canal of New Mordad-Khordad Distributaries project in Dhule division was approved (April 2016) by the MoEF with the condition that the plantations on both sides of distributaries of Panzan Left Bank Canal will be undertaken by the User Agency at their cost within one year. However, the work was neither undertaken by the User Agency nor was enforced by SFD (July 2018).

DCF, Dhule stated (March 2018) that, the matter would be taken up with User Agency. Government did not furnish any reply.

3.1.6 Fund Management

During 2013-18, SFD received funds of ₹ 745 crore from adhoc CAMPA on the basis of APOs submitted to MoEF and expenditure of ₹ 773.24 crore was incurred (March 2018).

3.1.6.1 Non reconciliation of amounts remitted into Adhoc CAMPA.

Amounts towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, NPV of forest land, Catchment Area Treatment Plan Funds *etc.*, are worked out by the SFD and are deposited by the concerned User Agencies directly into the adhoc CAMPA account through Challan/NEFT. A copy of the same is submitted to the division concerned alongwith the compliance conditions to stage-I approval.

The projects of diversion of forest lands are forwarded to MoEF through the APCCF. As such, the APCCF was aware of the amount credited by the User Agencies as part of compliance to the conditions put forth for the diversion of forest lands by MoEF. The APCCF cum Nodal Officer was, therefore, expected to ensure that the funds are credited correctly into accounts of State CAMPA and ensure periodical reconciliation of the same.

Audit observed that there was no database maintained by the Nodal Officer or at State CAMPA to verify the amount credited by user agencies and deposited into the Adhoc CAMPA account. The only record available was the Monthly Progress Report submitted by the circles which were compiled and maintained in excel sheet. In the absence of proper records, Nodal Officer could not

ensure the amount actually credited by the user agencies in Ad hoc CAMPA account, as the account was the combined account for all States. Therefore, reconciliation of the amounts deposited into the Ad hoc CAMPA accounts was not completed since inception.

APCCF cum Nodal Officer stated (December 2017) that as the amount recovered as compensatory levies are directly deposited in the account of Adhoc CAMPA, New Delhi, it was not fair to expect State Government to maintain the ledger for transaction that are not received by SFD. While furnishing the details of reconciliation it was stated that for the period 2006-13 the reconciliation was done in July 2014, however, ₹ 3.24 crore was pending reconciliation for which details had been sought from the bank at New Delhi. Reconciliation for the period 2013 to 2017 was pending and amount of ₹ 130.74 crore was still to be reconciled.

Government stated that the reconciliation of certain old proposals was still to be ascertained because at that point there was no system present for checking authenticity of each entry. Further, it was stated that as of November 2018, an amount of ₹ 195.06 crore was pending reconciliation.

3.1.6.2 Non reconciliation by circle offices

Analysis of statement of release of fund prepared by APCCF (CAMPAs), the Audit Report prepared by the Chartered Accountant and the actual receipt of fund shown in the records of circles during the period 2013-17 revealed differences as mentioned in **Table 3.1.2**.

Table 3.1.2: Reconciliation of funds disbursed

(₹ in crore)				
Name of the circle	Year	As per CA Report	Amount shown as disbursed by APCCF CAMPAs	Amount shown as received by the circle
Nagpur	2013-14	3.40	3.51	4.66
	2014-15	9.03	9.14	9.26
	2015-16	13.57	16.92	22.62
	2016-17	Not prepared	24.71	24.47
Thane	2013-14	Not furnished	12.37	12.37
	2014-15	18.12	16.83	18.58
	2015-16	14.57	14.68	14.68
	2016-17	18.62	15.68	Not prepared
Dhule	2013-14	6.67	6.74	6.68
	2014-15	7.78	7.96	7.96
	2015-16	7.81	8.01	7.88
	2016-17	14.83	16.86	16.82

Source : Information collected from circles

From the above it was clear that there was no reconciliation of figures between State CAMPAs and circles.

Government admitted the differences and stated that the same are being verified.

3.1.6.3 Outstanding recoveries of Net Present Value (NPV) pertaining to cases prior to 2002

The MoEF directed (October 2006) that the recovery of NPV was to be made in all cases of forest land diverted under FC Act, 1980 which included those

cases which were accorded in-principle approval before 30 October 2002 and for which final approval had either been granted on or after 30 October 2002 or shall be granted hereafter.

Audit observed that against the outstanding NPV of ₹ 32.66 crore worked out by SFD, ₹ 13.42 crore was recovered and balance amount of ₹ 19.24 crore was outstanding as of March 2018 i.e. even after lapse of 11 years.

Government stated that presently an amount of ₹ 16.98 crore was pending.

3.1.6.4 Irregular diversion of CAMPA funds

The Executive Committee had approved (August 2014 to December 2016) re-appropriation of funds of ₹ 11.26 crore from CAMPA on items²⁴ which were not included in the approved APO and inadmissible as per CAMPA guidelines. Out of ₹ 11.26 crore, an amount of ₹ 5.26 crore was yet to be recouped to CAMPA funds.

Though, the funds were diverted, the APCCF (CAMPA) was not maintaining any ledger or accounts to identify the amount transferred and recouped subsequently. The transactions were required to be traced from different files, bank statements *etc.*

Government accepted the fact and stated that only ₹ 25.60 lakh remained to be recouped.

The fact however remained that the diversion of funds was irregular.

3.1.7 Monitoring

3.1.7.1 Shortfall in the inspections of CAMPA plantations

As per norms prescribed (October 1995) by the PCCF (HoFF), Nagpur, the DCFs shall inspect and verify at least once all the plantations where pre-planting operations and planting are in progress. During First Year Operation (FYO), in addition to the inspection of planting and weeding, DCF shall inspect each plantation twice to review protection and also each plantation at least once during Second Year Operation (SYO) to Fifth Year Operation (5YO) to review the protection aspects. For Assistant Conservator of Forests (ACF), the inspections shall be carried out minimum of two times of each site during PPO to Tenth Year Operation (TYO).

In the eight test-checked (Gondia did not furnish information) divisions it was observed that during 2013-18, as against required 1,268 inspections of plantation for PPO to FYO the concerned DCFs conducted only 319 inspections. The concerned ACFs had conducted only 371 inspections as against required 1,536 inspections.

In the evaluation report published (December 2015), the SFD had observed that the intensity of inspections was found to be appalling, which was one of the reasons for poor quality of execution. Further, the details of inspections by supervisory officers were not available in many instances.

²⁴ Honorarium, Computerisation of accounts, Training to Ministerial staff, Extension to office building, Administrative expenses *etc.*

Government accepted the facts and stated that the norms for inspections have been revised (March 2018) and instructions issued (September 2018) to all implementing agencies to adhere to the norms.

3.1.8 Conclusion

The audit of State CAMPA revealed that a huge number of diversion proposals were pending at various stages for approval. The APCCF cum Nodal Officer did not maintain a database of non-forest land or degraded land received against the diversion of forest land. The details were also not maintained at APCCF (CAMPA) and at circles. The preparation of annual plan of operation was found deficient as there were cases of inclusion of compensatory afforestation works without adequate survey; non-inclusion of plantation works in plan within the stipulated period; inclusion of inadmissible items under CAMPA and inclusion of plantation works from State scheme. Besides, there were delays in submission of annual plans of operation to the Steering Committee. When compensatory afforestation works were executed on alternate lands, necessary approvals of MoEF were not taken always. MoEF's stipulations in respect of conditional works were also not followed. Thus, CAMPA funds could not be used economically and efficiently as delays in approvals had resulted in cost escalation which was not recovered from the user agencies and CAMPA funds had to be used. The scheme was ineffective in many instances as there were cases of diversion of fund for inadmissible purposes/unsuitable works and non-grounding of compensatory afforestation works under Annual Plan Operation as per rules. The reconciliation by APCCF cum Nodal Officer with Adhoc CAMPA for the amounts credited by the User Agencies was still pending. There were unreconciled differences between amounts released by State CAMPA and that shown as received by the circles. There were deficiencies in conducting inspections at field level resulting in weak monitoring with resultant poor quality in execution of works.

3.1.9 Recommendations

- Stage II approvals may be expedited. Cases pending for more than five years may be disposed off as per rules.
- A complete database of non-forest lands and degraded lands identified in lieu of diversions of forest lands should be maintained to ensure timely taking up of compensatory afforestation works.
- The mechanism to recover the differential cost from user agencies towards compensatory afforestation works must be strictly enforced.
- The annual plan of operation should be prepared with due diligence to avoid inclusion of irregular items and also ensure commencement of PPO within stipulated period as per extant guidelines.
- The APCCF cum Nodal Officer may ensure a system for early completion of pending reconciliation of the amounts credited by the User Agencies with Adhoc CAMPA.

Water Resources Department

3.2 Implementation of Small Hydro Projects on PPP basis in Maharashtra

3.2.1 Introduction

Power is a critical infrastructure on which the socio-economic development of the country depends. The growth of the economy and its global competitiveness hinges on the availability of quality power at competitive rates.

Water Resources Department (Department), Government of Maharashtra (GoM) declared Hydro-Power Policy in November 2002 which was applicable only to captive power producers with installed capacity upto 25 MW. The Government declared (September 2005) a revised policy for development of small hydro projects (SHPs) upto 25 MW installed capacity through private sector participation with an intention to harmonise the provisions in the State policy with those in Electricity Act²⁵, 2003 (Act).

Department in furtherance of the policy identified and displayed (September 2005), 121 SHPs (details of which shown in paragraph 3.2.2) with installed capacity of 417.92 MW to be offered to captive power producers²⁶ (CPP)/independent power producers²⁷ (IPP) through bidding process. The criteria for selection of developers were as under:

- The developers are selected on the basis of technical and financial capabilities, past experience and highest upfront premium²⁸ offered. The selected developer was also required to pay the threshold premium at ₹ 50 lakh/MW where Department had already made investment on trash rack²⁹ and penstock³⁰ and in other cases it is Nil. On selection, Letter of Permission (LoP) was issued to developer. LoP was also issued to the developer who came forward with his own site for development provided the project was not already identified by Department. The selected developer was required to prepare and submit a techno-economic feasibility report (TEFR) to GoM within three months from the receipt of LoP.

²⁵ The Electricity Act, 2003 has come into force since 10 June 2003 by replacing the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and Electricity Regulation Commission Act, 1998 with a view to de-license the generation and permit direct commercial relationship between Generation Company and consumer/trader

²⁶ Captive generating plant is a power plant set up by any person to generate electricity primarily for own use

²⁷ Independent generating plant is a power plant set up to generate electricity for sale to any consumer located in the state or any other willing distribution licensee or power trading company

²⁸ Upfront premium is primary consideration for allotment of the project

²⁹ A trash rack is a wooden or metal structure, frequently supported by masonry that prevents water-borne debris (such as logs, boats, animals, masses of cut waterweed *etc.*) from entering the intake of a water mill, pumping station or water conveyance. This protects water wheels, penstocks, and sluice gates from destruction during floods

³⁰ Penstock is a sluice or gate that controls water flow or an enclosed pipe that delivers water to hydro turbines

- After approval of TEFR, a letter of allotment (LoA) was issued to the developer within one month from the date of submission of TEFR. On receipt of LoA, developer was required to deposit the performance security and sign a hydropower development agreement (HDP) with the Department within eight days.
- After signing the HDP, the developer was to arrange for clearance and financial closure within six months. After getting this, GoM was required to issue a letter of authorisation (LoA) to the developer to start the project work within eight days on payment of the upfront premium. The developer was required to complete the project within 24 months from the date of authorisation.
- The Small Hydro Projects (SHP) allotted under this policy was on build, operate and transfer (BOT) basis for a period of 30 years starting from the date of commissioning. Department could extend the BOT period at its discretion. If the period was extended, the Department reserved the right to review the charges specified in the policy.
- Generated electricity can be sold to any consumer located in the State or any willing distribution licensee or any power trading company. However, Maharashtra Electricity Distribution Company should have first right of refusal. Sale of power should be as per dispensation emerging from the tariff and procurement process determination exercise initiated by Maharashtra Electricity Regulatory Commission.

3.2.2 Status of Projects

GoM had identified 121 sites for construction of SHPs based on availability of water, land, dam work completed/near completion, topo-sheet study and preliminary investigation conducted at field level. The status of 121 SHPs as on December 2018 is shown in **Table 3.2.1**.

Table 3.2.1: Status of Small Hydro Projects

Status	Government identified		Self-identified		Total	
	Nos.	Installed capacity (MW)	Nos.	Installed capacity (MW)	Nos.	Installed capacity (MW)
Bidding completed	19	31.30	11*	39.40	30	70.70
Bidding in progress	3	1.70	--	--	3	1.70
Feasibility study in progress	61	266.87	--	--	61	266.87
Project dropped	26	78.15	1	0.50	27	78.65
Total	109	378.02	12	39.90	121	417.92

Source: Information furnished by Department
*Note: *Included 10 Government-identified projects allotted as self-identified*

3.2.3 Organisational Set-up

The Principal Secretary, Water Resources Department is the administrative head of the Department. He is assisted by the Secretary, Command Area Development (CAD) at Mantralaya level, and (i) Chief Engineer (CE) (Electrical), Hydro Projects, Mumbai; (ii) CE (Civil) of the concerned regions; (iii) Superintending Engineer (SE); Koyna Design Circle (KDC), Pune; (iv) SEs (Civil) & (Electrical) of the concerned circles; and (v) the Executive Engineers (EE) of the divisions concerned at the field level for implementing

the policy for development of SHPs through privatisation. Activities of field offices for implementation of the policy are shown in **Table 3.2.2**.

Table 3.2.2: Activities of field offices for implementation of the policy

Activity	Competent Authority
Issue of LoP for Government identified SHP	CE (Electrical)
Issue of LoP for self-identified SHP	Secretary (CAD)
Authority for submission of TEFRR	SE, KDC, Pune under intimation to Department
Authority for approval to TEFRR	Secretary (CAD)
Signing of HPDA	CE (Civil) of the concerned region
Approving extension of time limit for clearances and financial closure/decision regarding forfeiture of performance security and cancellation of HPDA	Secretary (CAD) on recommendation of CE (Civil) of the concerned region
Imposing penalty for surrender of allotment	Secretary (CAD)
Monitoring progress of SHP	EE (Civil)
According extension of time limit for the development activity/imposing penalty for delay	CE (Civil) as per provision of HPDA with approval of Secretary (CAD)
Pre and post monsoon inspection of SHP	Joint inspection by the SE (Civil) & (Electrical) of the concerned region.
<i>Source: State Hydel Policy, 2005</i>	

3.2.4 Scope of Audit

The implementation of the Policy in the State was reviewed by the Audit during February to August 2018 by scrutinising the records in Department at *Mantralaya*, offices of the CE (Electrical), Hydro-project, Mumbai, three³¹ CEs of WRD, SE, KDC, Pune and EEs of eight³² divisions. Audit selected nine (installed capacity: 39.25 MW) out of 30 (installed capacity: 70.70 MW) projects for which bidding was completed, on random basis as shown in **Appendix 3.2.1**. The reply of State Government furnished in January 2019 has been incorporated suitably at appropriate places.

The audit findings, which emerged from the examination of records, are discussed below:

Audit findings

The audit findings include deficiencies in planning, tendering, implementation of project, shortfall in generation and monitoring which are detailed in succeeding paragraphs.

3.2.5 Planning

3.2.5.1 Feasibility study still in progress

As stated in **paragraph 3.2.2**, Department had identified 121 sites (installed capacity: 417.92 MW) for development of SHPs under revised Policy.

³¹ (1) CE (SP), WRD, Pune; (2) CE, NMR, Nashik; and (3) CE, Goshikhurd Project, Nagpur

³² (1) Kukadi Irrigation Division No. 1, Narayangaon, Pune; (2) Minor Irrigation Division, Kolhapur; (3) Medium Project Division, Kolhapur; (4) Nashik Irrigation Division, Nashik; (5) Nandur-Madhmeshwar Project Division, Nashik; (6) Upper Pravara Dam Division, Sangamner, Ahmednagar; (7) Mula Irrigation Division, Pune; and (8) Goshikhurd Dam Division, Pauni, Bhandara

Audit noticed that out of 121 sites identified by Department, 61 sites (installed capacity: 266.87 MW) were identified without carrying out feasibility study. Audit further noticed that of these sites, feasibility study of one site (installed capacity: five MW) is in progress and feasibility study of 60 sites (installed capacity: 261.87 MW) have not started till date (January 2019). Besides, 27 projects with installed capacity of 78.65 MW were also dropped being financially infeasible.

This indicated that no proper planning was done while finalising the sites for development of SHPs and the projected installed capacity had not been achieved even after lapse of more than 17 years from the enforcement of revised policy in September 2005.

State Government stated that most of the sites included in the list were identified 25-30 years back. For bidding purposes, the installed capacity was estimated on the basis of preliminary information furnished by civil wing of Department. Once these projects awarded to developer, he would carry out detail survey and investigation.

Reply corroborated the fact that Government had identified the sites for construction of SHPs without carrying out feasibility study. Thus, the objective of harnessing the green power with the help of private sector was largely defeated due to deficient planning.

3.2.5.2 Allotment of projects without tendering

As per Policy, if the developer comes forward with his own site for development of the project, Department should issue LoP directly provided the proposed project is not already investigated by Department. Decision of Secretary (CAD) of Department in this regard should be final.

Audit noticed that out of 11³³ self-identified projects, 10 projects³⁴, though included in the Government identified sites, were awarded to developers on the ground that detailed project reports of these sites were not done by the Department.

Thus, due to delay in completion of detailed project reports the sites, which were identified by the Department, were allotted to the developers without tendering, which resulted in loss of upfront premium, which could not be quantified and also lack of competitiveness and transparency.

³³ (1) Bhambhurda Taluka Mulshi, District Pune (5.00 MW); (2) Dhamani Dam foot, District Kolhapur (2.80 MW); (3) Ghatprabha, District Kolhapur (8 MW); (4) Ghod District Pune (0.50 MW); (5) Khodshi, District Satara (4.90 MW); (6) Mula Right Bank Canal (RBC) and Left Bank Canal (LBC), District Ahmednagar (4.9 MW); (7) Morana, District Sangali (0.40 MW); (8) Nilwande, District Ahmednagar (7 MW); (9) Nilwande High Level, District Ahmednagar (4.60 MW); (10) Suki, District Jalgalon, (0.50 MW); and (11) Yedgaon, District Pune (3 MW)

³⁴ (1) Bhambhurda Taluka Mulshi, District Pune (5.00 MW); (2) Dhamani Dam foot, District Kolhapur (2.80 MW); (3) Ghatprabha, District Kolhapur (8 MW); (4) Ghod District Pune (0.50 MW); (5) Khodshi, District Satara (4.90 MW); (6) Mula Right Bank Canal (RBC) and Left Bank Canal (LBC), District Ahmednagar (4.9 MW); (7) Morana, District Sangali (0.40 MW); (8) Nilwande, District Ahmednagar (7 MW); (9) Nilwande High Level, District Ahmednagar (4.60 MW); and (10) Yedgaon, District Pune (3 MW)

3.2.6 Tendering

▪ Short-recovery of threshold premium

As per Policy read with clause 2.1.3 of HPDA, the developer was required to pay threshold premium and upfront premium within one month from the date of receipt of letter from Department.

Audit noticed that two out of nine selected projects; there were short/non-recovery of threshold premium as discussed below:

- In respect of Nilwande HEP, District Ahmednagar, the Developer, paid (January 2011) only ₹ 3.5 crore, against ₹ four crore due (eight MW@ ₹ 50 lakh/MW) towards threshold premium, which resulted in short recovery of ₹ 50 lakh. Though the Department continuously instructed for payment of balance threshold premium, developer had not paid the same until date (October 2018).
- In respect of Ghatprabha SHP, District Kolhapur, the Department did not recover threshold premium of ₹ four crore.

Government stated that the Regional Chief Engineer was instructed to verify the issue of threshold premium in view of actual installed capacity and action would be taken accordingly. In respect of Ghatprabha SHP, it is stated that instruction was issued to field office to recover the threshold premium.

3.2.7 Implementation

As per Policy, the developer was required to commission the Project within 24 months from the date of authorisation. As against 30 SHPs tendered, 11 SHPs (36.85 MW) were commissioned while 19 SHPs (33.85 MW) were incomplete as of March 2018.

3.2.7.1 Completed Projects

Out of 11 commissioned projects, two projects (Ghatprabha SHP and Pimpalwadi dubi SHP) were commissioned within the time limit and nine projects were commissioned after delays ranging from one month to 63 months.

In respect of six selected commissioned projects, one project (Ghatprabha SHP) was commissioned within scheduled time and five projects were commissioned after delays ranging from 17 months to 63 months as detailed in **Appendix 3.2.2**.

Of the five projects, for two projects *i.e.* Yedgaon, district Pune and Mukane, district Nashik, the delay was due to delay in handing over of land to developers while in respect of Nilwande, district Ahmednagar the delay was due to delay in land acquisition for upper level powerhouse. Further, in respect of Radhanagari SHP, district Kolhapur the delay was due to delay in repairs to leakages in sluice gate and spillway of dam whereas in respect of Darana SHP, district Nashik the reasons for delay could not be ascertained from records. The other audit findings are discussed below:

- **Ghataprabha SHP, District Kolhapur (Self-identified)**

The LoA was issued (January 2009) to the developer with installed capacity of eight (2×4) Megawatt (MW) and projected annual generation was 12.67 million units (mus) to be commissioned by November 2013. The project was commissioned in July 2011.

Scrutiny revealed that the Ghataprabha SH Project was shortlisted by the Department, however, the LoP was issued (June 2008) to Developer as self-identified project. The SE, KDC, Pune did not specify the actual installed capacity and approved the project at 2×2.5 MW or more in TEF. The developer has, however, set up two turbines of four MW each *i.e.*, eight MW which were unworkable as the capacity utilisation factor³⁵ of the project was only 18 *per cent* indicating unviable. Further, the internal rate of return was 7.78 *per cent* only as against prescribed 11 *per cent* by the Department. As per the approved water table, the annual generation was worked out on the basis of installed capacity of eight MW, however, the design of penstock, turbine and generator was prepared based on installed capacity of five MW, which was also not justifiable. However, SE, KDC, Pune declared the project financially viable.

Audit noticed that as against the 70.35 mus projected annual generation from July 2011 to January 2017, the actual generation during the said period was 68 mus. Thus, there was short generation of 2.35 mus. It was further noticed that the power generation had been stopped since February 2017 due to failure in SCADA³⁶ system and control & relay panels.

Government stated that shortfall in generation was due to release of water to fill up the K.T. weirs downstream of dam. Further, developer was responsible for loss of power generation and field office instructed the developer from time to time for repairing of SCADA system.

3.2.7.2 Incomplete projects

As per Policy, developer was required to commission the project within 24 months from the date of authorisation. Audit noticed that 19 projects, with installed capacity of 33.85 MW, remained incomplete due to incomplete gorge filling work in dam, preparation/revision/modification of HPDA under progress, dam work stopped due to opposition of PAPs, incomplete rehabilitation works, letter of authorisation not issued *etc.*

In respect of two out of three selected ongoing projects with installed capacity of 6.05 MW, the delays in completion of SHPs ranged from 39 to 53 months as detailed in **Appendix 3.2.3**. Of the three projects, one project *i.e.* Goshikhurd (RBC) SHP, Pauni, district Bhandara, the time limit for completion of project was not expired whereas in respect of Waki SHP district Nashik the delay was due to non-completion of dam. In respect of Mula (Right

³⁵ Capacity utilisation factor is the ratio of actual gross energy generated by the project to the equivalent energy output as its rated capacity over the year

³⁶ Supervisory control and data acquisition (SCADA) is a computer system for gathering and analysing real time data. It is used to monitor and control a plant or equipment in industries such as telecommunications, water and waste control, energy, oil and gas refining and transportation

Bank Canal and Left Bank Canal) SHP the delay was due to the title of land was not in the name of Water Resources Department.

Government stated that instruction was issue to CE, NMR, Nashik for review of progress of Waki SHP and subsequent action against the developer. In respect of Mula SHP, it was stated that the land was now in the name of WRD and financial closure by developer was in progress. The extension of time limit upto April 2020 was given for completion of project.

3.2.8 Shortfall in generation of power

The TEFR was to be prepared considering the release of the water strictly as per irrigation/domestic/industrial demands and the generation was to be synchronised with these releases. Department reserved the right to decide the release schedule and modify it from time to time as per the requirements. No claims of compensation on these grounds (*less release of water*) should be entertained.

Scrutiny of six selected SHPs commissioned revealed that as against the projected annual generation of 462.35 mus based on TEFR, the actual generation upto March 2018 was 333.91 mus (*72 per cent*) as detailed in **Appendix 3.2.4**. The reasons for non-achieving of projected annual generation were non-acquisition of land in submerged area, delay in handing over and less release of water *etc.*

Further scrutiny revealed that in respect of Nilwande low level SHP the targeted generation was achieved whereas in respect of Mukane SHP, generation was not commenced due to change in location of sub-station for grid connectivity by MSEDCL. In remaining four SHPs, there was shortfall in the annual generation of power ranging from three *per cent* (Ghatprabha SHP) to 89 *per cent* (Yedgaon SHP) of the targeted annual generation mainly due to less release/availability of water. Thus, the condition regarding the release of water in the Policy, HPDA and TEFR was not in consistent with the objective of creating suitable environment for attracting private sector investment.

3.2.9 Monitoring

Audit noticed that though review meetings were conducted during July 2013 to October 2016 wherein difficulties in implementation of projects were discussed, the project specific issues were not discussed in the said meetings. No review meetings were conveyed thereafter either by CE (Electrical), Hydro Projects or at Government level.

Government stated that periodical meetings were taken up at Government level and instruction was issued to CE (Electric) to conduct monthly meetings with CE (Civil) of concerned region to address various issues concern with development of SHPs.

The reply substantiates audit findings that there was lack of co-ordination between the CE (Civil) and CE (Electrical) which adversely affected implementation of the projects, as brought out in earlier paras.

3.2.9.1 Non-revision of hydro policy

As per the State Hydel Policy 2005, the policy should periodically be reviewed in view of the dynamic economics of the sector. In normal circumstances, next review should be after three years.

Audit noticed that though CE (Electric) had carried out review and submitted (September 2008 and December 2013) a draft policy suggesting various amendments/revisions to overcome the constraints at various stages of implementation, no action has been taken at Government level.

State Government stated that CE (Electric) was directed to evaluate the outcome of Hydel Policy, 2005 in view of benefits and various aspects/lessons learnt during implementation. Further, draft of revised Hydel Policy, 2008 was being circulated to Regional CE (Civil) and other line department for their comments.

3.2.10 Conclusion

Audit on implementation of Small Hydro Projects on PPP basis covering the period 2013-18 revealed that out of 121 sites identified by the Department, the feasibility study of 61 sites (installed capacity: 266.87 MW) had not been completed at the time of identification of sites and 27 sites (installed capacity: 78.65 MW) were dropped being financially infeasible. Further, as against estimated installed capacity of 417.85 MW, only 36.85 MW installed capacity was achieved.

In respect of six selected commissioned projects, one project was commissioned within scheduled time and five projects were commissioned after delays ranging from 17 months to 63 months. There was time overrun ranging from 39 to 53 months in respect of two ongoing projects due to non-completion of dam and land handed over to developer was not in the name of the Department. The projected annual power generation was not achieved, among other things, due to release of lesser volume of water.

Thus, due to improper planning and inadequate monitoring the objective of harnessing the green power with the help of private sector was largely defeated. Had the planning and monitoring been better, the outcome could have been different.

3.2.11 Recommendations

- Government may complete the feasibility study in respect of listed projects in a time-bound manner.
- Government may address the issue of less release of water so as to have fair terms for PPP Projects.
- There was a need to focus on the issues on hand and work out a solution to take the project forward or short close the same if a feasible solution was possible.

3.3 Implementation of Accelerated Irrigation Benefits Programme

3.3.1 Introduction

The Government of India (GoI) launched an Accelerated Irrigation Benefits Programme (AIBP) during 1996-97 to provide Central Loan Assistance (CLA) to major³⁷/medium³⁸ irrigation projects in the country with the objective to accelerate the implementation of those projects, which were beyond resource capability of the States, or were in advanced stage of completion. From 2005-06 onwards, Central assistance was given in the form of grants instead of CLA. Since inception, 68 major/medium projects were included under AIBP in the State of Maharashtra, of which 39 projects were completed as on 31 March 2013. Out of remaining 29 projects, five were completed during 2013-18 leaving 24 projects, which were ongoing as on March 2018.

Implementation of AIBP in the State is done by the State Government in Water Resources Department (WRD) through five³⁹ Irrigation Development Corporations (IDCs) which are responsible for construction and management of Irrigation Projects in the State. A State Level Technical Advisory Committee⁴⁰ (SLTAC) scrutinises and gives clearance to proposals of administrative approval/ revised administrative approvals costing above ₹ 25 crore.

The Audit was conducted between May 2017 and September 2017 and information obtained in November 2018 covering the period 2013-18 through a test-check of records in WRD at *Mantralaya* and all the five IDCs, with a view to review implementation of the AIBP in the State. For detailed audit, 18 projects out of 29 were selected on random sampling basis as given in **Appendix 3.3.1**. Joint inspection of project sites was also done by audit along with the officials of IDCs. The replies of the WRD received (February/December 2018) have been included wherever necessary.

The audit findings, which emerged from the examination of records in these offices, are discussed below:

Audit findings

The audit findings on financial management, project implementation, contract management, creation of irrigation potential and its utilization and monitoring are discussed in succeeding paragraphs.

³⁷ Projects having culturable command area (CCA) of above 10,000 hectares (ha)

³⁸ Projects having CCA above 2,000 ha and upto 10,000 ha

³⁹ (i) Maharashtra Krishna Valley Development Corporation (MKVDC) for Western Maharashtra (ii) Konkan Irrigation Development Corporation (KIDC) for Konkan region (iii) Godavari Marathwada Irrigation Development Corporation (GMIDC) for Marathwada region (iv) Vidarbha Irrigation Development Corporation (VIDC) and (v) Tapi Irrigation Development Corporation (TIDC) for Vidarbha/Marathwada regions

⁴⁰ GoM constituted (November 2010) State Level Technical Advisory Committee to scrutinise proposals pertaining to AA and RAA of water resources projects costing above ₹ 25 crore. The Committee chaired by Director General, Design, Training, Hydrology, Research & Safety, Nashik with Chief Engineer, Design, Training, Research & Safety, Nashik and Chief Engineer, Planning & Hydrology, Nashik as members and Superintending Engineer, Data Collection, Planning & Hydrology, Nashik as Member-Secretary

3.3.2 Financial Management

The balance cost of the project at the time of inclusion in AIBP was considered for assistance under AIBP. The share of GoI under AIBP since 2006 was 90 per cent for drought prone, tribal and flood prone areas (which was reduced to 75 per cent and 60 per cent from 2013 and 2015 onwards) and 25 per cent from 2013 onwards for other areas. Funds under AIBP were released by GoI to the State Government as per the progress of work based on the sharing criteria. The State Government was required to release the Central share and the State's matching share to the IDCs, which in turn were expected to release the funds to the executing divisions based on their demand limited to overall administrative approval for the project. The budget provision, release of Central and State share funds and expenditure incurred during 2013-18 are given in **Table 3.3.1**.

Table 3.3.1: Budget provisions, release of fund vis-à-vis expenditure during 2013-18
(₹ in crore)

Year	Budget provision		Receipt of Central Share*	Release of State Share	Total funds received	Expenditure
	Central share	State share				
2013-14	1135.59	509.77	279.52	1280.57	1560.09	2036.39
2014-15	956.45	757.88	32.00	1121.49	1153.49	1239.97
2015-16	562.36	600.10	307.80	2406.13	2713.93	1872.98
2016-17	1270.96	1417.62	379.87	3254.83	3634.70	2756.43
2017-18	596.96	2132.52	346.86	2132.51	2479.37	2960.04
Total	4522.32	5417.89	1346.05	10195.53	11541.58	10865.81

Source: Information furnished by WRD, GoM
Note: Budget provision, fund release and expenditure incurred is related to all - ongoing projects under AIBP in that year
 * GoI has released less central fund due to less allocation of fund to the Ministry

During 2013-18, the total fund released under AIBP was ₹ 11,541.58 crore (Central share ₹ 1,346.05 crore and State share ₹ 10,195.53 crore), against which expenditure incurred was ₹ 10,865.81 crore.

3.3.2.1 Projects deprived of funds due to delays in according revised administrative approval

Para 134 of Maharashtra Public Works (MPW) Manual provided that revised administrative approval (RAA) should be obtained when there was a likelihood of expenditure exceeding the amount of administrative approval (AA) by 10 per cent.

In test check projects, there was a delay in according RAA in two projects viz., Warna Medium Irrigation Project and Sangola Branch Canal Project, as detailed below:

- **Warna Medium Irrigation Project**

The project was administratively approved (January 1967) for ₹ 31.64 crore, which was revised from time to time until latest revision in July 1986 for ₹ 288.47 crore. The upto date expenditure upto March 2005 was ₹ 288.32 crore. The project was included under AIBP in 2005-06 and upto date expenditure incurred upto March 2012 was ₹ 519.81 crore. Meanwhile, MKVDC submitted (January 2011) proposal to GoM for according third RAA

for ₹ 2,149.95 crore which was approved in October 2016 for ₹ 1,174.98 crore. As a result, no fund was provided to the project between April 2012 and March 2016. Thus, due to non-availability of funds, the work was not completed and hence project was delayed. The work of canal was deferred and the command area of the project was irrigated through lifts from the river.

- **Sangola Branch Canal Project**

The project was administratively approved (September 1977) for ₹ 0.46 crore, which was revised from time to time upto December 2003 for ₹ 288.01 crore. The upto date expenditure upto March 2007 was ₹ 76.41 crore. The project was included under AIBP in 2007-08 and upto date expenditure incurred upto March 2014 was ₹ 276.73 crore. The MKVDC submitted (December 2014) proposal to GoM for according third RAA for ₹ 937.92 crore which was approved in October 2016 for ₹ 937.92 crore.

Thus, due to delay in grant of RAAs, no fund was provided to the project from 2014-16. The project was planned to be completed in December 2019.

WRD stated (February 2018) that the delay in granting RAA to projects was due to necessity of obtaining approval of SLTAC as per the revised guidelines.

The fact remained that these projects especially Sangola Branch Canal project which was taken up to cater to the need of drought prone areas lagged behind for want of funds.

3.3.2.2 Non-recovery of outstanding dues

(i) KIDC is implementing the Tillari Project as an inter-state project between Government of Maharashtra (GoM) and Government of Goa (GoG) with a view to create irrigation potential of 6,676 hectares (ha) in Maharashtra State (Tillari river basin in Sindhudurg district) and 14,521 ha in Goa State.

As per inter-state agreement between GoM and GoG (April 1999), the cost of construction and operation was to be shared by GoM and GoG in the ratio of 26.70 and 73.30 *per cent* respectively. Further, as per clause 3(v) *ibid*, the cost of some portions of main canal, branches and distributaries serving exclusively the territories of one State only should be borne by that State alone.

The cost as per the latest (fourth) RAA (June 2017) was ₹ 2,496.78 crore (GoM share ₹ 1,667.21 crore and GoG share ₹ 829.57 crore). The upto date share to be recovered from GoG on headwork and canal work was ₹ 568.19 crore as on March 2018. Of which, GoG released fund of ₹ 478.11 crore leaving balance of ₹ 90.08 crore.

Audit observed that GoG did not release its contribution to GoM since 2013-14. Though KIDC was pursuing the matter with GoG for payment of the dues, GoM belatedly requested GoG to pay the pending dues, in November 2015, November 2016 and August 2018 stating that non-receipt of the dues was hampering the progress of the project. GoG agreed (August 2018) to release ₹ 15 crore initially, however, only ₹ five crore was paid so far (November 2018).

(ii) The height of Waghur Dam under TIDC was increased (December 1997) by two meters for providing drinking water to Jalgaon Municipal Corporation

(JMC) for which Water Supply and Sanitation Department (WSSD), GoM was required to pay ₹ 47.55 crore to the WRD. However, WSSD had not paid the said amount. After closing of WSSD, the liability for payment of dues lies with the JMC. Subsequently, WRD updated (July 2018) the cost of work at ₹ 757.85 crore as per the yardstick of minor irrigation tank.

WRD stated (December 2018) that the recovery was being pursued with GoG and JMC.

3.3.3 Project Implementation

3.3.3.1 Delays in completion of the Projects - Time and cost overruns

As per the AIBP guidelines, the projects were to be completed within four financial years from the inclusion under AIBP. Out of 29 projects, five were completed during 2013-18, leaving 24 projects ongoing as on March 2018. The status of completion of 18 test-checked projects as on March 2018 is given in **Table 3.3.2**.

Table 3.3.2: Status of completed and ongoing projects taken up under AIBP

Name of the IDC	Number of Test checked Projects	Completed Projects			On-going Projects		
		Number of Projects completed	Delay from the stipulated date of completion under AIBP	Cost overrun with reference to the approved cost under AIBP (₹ in crore)	Number of Ongoing Projects	Delay from the stipulated date of completion under AIBP	Cost overrun with reference to the approved cost under AIBP (₹ in crore)
GMIDC	2	0	-	0	2	5 to 9 years	1778.03
KIDC	3	0	-	0	3	6 to 8 years	1019.00
MKVDC	6	1	7 years	0	5	4 to 7 years	557.00
TIDC	3	1	7 years	9.21	2	6 to 18 years	1031.13
VIDC	4	0	-	0	4	7 to 10 years	3092.13
Total	18	2		9.21	16		7477.29

Source: Information furnished by WRD, GoM

Audit noticed that though the balance cost of 18 tested checked projects at the time of inclusion under AIBP was ₹ 4,089.07 crore, the upto date expenditure (not just five years) incurred under AIBP as on March 2018 was ₹ 11,575.57 crore. Thus, there was cost overrun of ₹ 7,486.50 crore due to delay in completion of projects. The major reasons for the delay were stated to be slow progress of land acquisition (10 projects), opposition of PAPs demanding compensation as per new Land Acquisition Act (one project), PAPs demanding cash compensation (one project), opposition of PAPs for construction of dam (one project), PAPs demand for irrigation water for themselves (one project), shortage of funds (five projects), delays in receipt of RAA from GoM (two projects), change in scope of work (three projects) etc. The Project wise reasons are shown in **Appendix 3.3.2**.

The WRD stated (December 2018) that delays in completion of projects were beyond the control of WRD and due to rising inflation indices and various valid reasons the balance cost of projects increased. However, by declaring special packages to PAPs, utilisation of artificial sands instead of natural sands wherever possible and administrative as well as policy reforms the projects would be completed in next one to three years.

The fact remained that the projects were delayed, which resulted in cost and time over run.

3.3.3.2 Incomplete Rehabilitation and Resettlement

As per the Maharashtra Project Affected Persons Rehabilitation Act, 1999, the State Government should provide civic amenities at the prescribed scale and manner in the new resettled village or in the extended part of any existing village established for the purpose of rehabilitation of PAPs. Such amenities should include 18 amenities mentioned under clause 10 (3) of the Act *ibid* such as schools, roads, cemetery, pastureland *etc.*

In test checked projects, it was noticed that rehabilitation and resettlement was completed in respect of three projects *i.e.*, Warna, Tillari and Sangolo Branch Canal and in respect of two projects *i.e.*, Tarali and Arjuna it was almost completed. In respect of Krishna Koyna Lift Irrigation Scheme the rehabilitation and resettlement was not required while in respect of Aruna the dam work is yet to start. The rehabilitation and resettlement of Dhom Balakwadi and Wang Medium Irrigation project was in progress. The observations noticed in these two projects are discussed in **Table 3.3.3**.

Table 3.3.3: Status of rehabilitation of PAPs vis-à-vis amenities provided to rehabilitated villages

Name of the Project	Date of AA/cost of Project as per latest RAA	Affected villages PAPs/ Families	Status of rehabilitation of PAPs	Amenities not provided in the villages
Wang Medium Irrigation, District: Satara	31-10-1995/ ₹ 235.91 crore	9 villages 1,922 families	832 families were resettled and 1,090 families were still to be resettled.	Eight amenities ⁴¹ were not provided in the 15 new villages where PAPs were relocated despite a lapse of five years since project was to be completed in 2011 after inclusion under AIBP in 2008-09. It was further observed that out of 1,922 families, land has been distributed fully to 832 families, partly to 208 families and land to 882 families was yet to be distributed as PAPs are unwilling to move to new location. The WRD stated (December 2018) that important civic amenities like water supply, electrification, samaj-mandir, internal metal roads were provided. All construction works and allotment of plots would be completed by January 2019.
Dhom-Balkawadi, District: Satara	11-06-1996/ ₹ 1402.51 crore	4 villages 757 PAPs	757 PAPs rehabilitated	Two additional amenities ⁴² were to be provided in one village, where PAPs were relocated, however, the same was not provided till date. The WRD stated (December 2018) that the work of additional civic amenities would be completed by December 2018.

Source: Documents as collected by audit from Department/IDCs

⁴¹ (i) Open built up gutters, (ii) Cremation ground, (iii) Village Panchayat office, (iv) Land for bus stand, (v) Land for market, (vi) Water cistern for cattle, (vii) Pasture land and (viii) Access to farm land

⁴² (i) Village panchayat bhavan and (ii) Bus stop

3.3.4 Contract Management

Scrutiny of records related to execution of work in the test-checked projects revealed the following:

3.3.4.1 Award of work without inviting tenders

As per Para 200 of MPW Manual, tenders should invariably be invited publicly for all works to be given out on contract except extra items which were required to be executed while the work originally undertaken was in progress and which were really inseparable from the original contract and could not conveniently be done by a different agency.

Krishna Koyna Lift Irrigation Scheme (KKLIS) implemented by MKVDC was included in AIBP in 2009-10. WRD accorded (December 2006 and July 2007) approval for allotment of 29 works costing ₹ 43.34 crore pertaining to earthwork and construction of structures in various minors⁴³ of Takari Main Canal to two sugar co-operative factories⁴⁴ without inviting tenders on the ground of urgency and inability of MKVDC to complete these works immediately due to paucity of funds. Audit noticed that these works actually allotted to the sugar co-operative societies during 2009-10 to 2011-12, thus, there was no urgency in carrying out the works and therefore tendering process should have been resorted to in awarding the work. Further, these 29 works were in progress and only 80 per cent work amounting to ₹ 38.81 crore was completed till December 2018.

The WRD stated (December 2018) that there was urgency to execute works, however, due to paucity of funds and these agencies were ready to carry out the works without any condition of timely payment and escalation the works were awarded without tendering. This helped in creating irrigation potential of 10,200 ha in drought prone area and saving in cost and time.

The reply was not acceptable as these works were still incomplete even after a lapse of seven to eight years and thus, very purpose of awarding work without inviting tenders was defeated. Further, awarding the work without inviting tenders resulted in non-verification of experience and eligibility of contractors, which is evident in instant case that the works were still incomplete.

3.3.4.2 Excess payments to contractor

Arjuna Irrigation Project, Taluka Rajapur, District Ratnagiri was included in AIBP from 2007-08. The work was in progress and expenditure incurred upto December 2018 was ₹ 559.29 crore.

Scrutiny of records revealed that contractor had carried out the work of „construction of embankment for hearting⁴⁵ zone’ and „construction of embankment for casing⁴⁶ zone’. The payment of ₹ 44.37 crore was made to contractor in September 2011. It was, however, noticed that Department had sanctioned (between April 2011 and May 2011) Extra Item Rate List (EIRL)

⁴³ A branch of distributary of canal

⁴⁴ (i) Sonhira Sahakari Sakhar Karkhana (SSK) Ltd (₹ 30.75 crore) and (ii) Dongrai Sagareshwar Shetkari Sahakari Karkhana Ltd.

⁴⁵ Hearting zone is zone of impervious earth within a zoned earthen or rock fill dam

⁴⁶ Casing zone is the outer side of hearting zone placed with pervious soils so as to protect the hearting zone

towards spreading the hearting and casing material by Dozer. Accordingly, ₹ 17.60 crore was paid (September 2011) to contractor towards EIRL. Since construction of embankment for hearting and casing zone was already included in the tender for which payment was made to the contractor as per tender rate, additional payment to the contractor on the ground of extra efforts was irregular and thus, resulted in excess payment of ₹ 17.60 crore.

WRD stated (December 2018) that there was no provision in the tender item for carrying out this work by mechanical means (dozer) but for achieving the progress of work contractor actually executed the work by using dozer.

The reply was not in consonance with the item No. 6, 7 and 8 of schedule B of tender document, which specified that the construction of embankment for hearting and casing zone with selected material and with all lead and lifts and its consolidation was to be done by contractor. Therefore, the cost of executing the work by any means including mechanical means was to be borne by the contractor.

3.3.5 Irrigation Potential created and utilised

The Irrigation Potential (IP) created and IP utilisation of two completed projects revealed that in respect of Warna Project, District Sangli, IP created (12,247 ha) was fully utilised. However, in respect of Gul Project, District Jalgaon, as against IP created of 3,025 ha the actual utilisation was only 350 ha due to non-execution of On-Farm Development Works (Command Area Development and Water Management) and diversion of water (64 per cent) for non-irrigation purpose for Chopda Municipal Council.

3.3.6 Monitoring

Monitoring of the project included under the AIBP is essential to ascertain the reasons for any shortfall/bottlenecks and suggest remedial measures to ensure completion of the project in a time-bound manner.

Government stated (February 2018) that the review of progress of projects as well as co-ordination among various departments such as forest, revenue *etc.*, is done regularly and effectively. For monitoring a special cell is also established to monitor physical and financial progress of all AIBP projects.

Reply is not convincing as in spite of creating of special cell and monitor at Department level, the issues relating to land acquisitions, delay in RAA *etc.*, which in effect delay in completion of project.

3.3.7 Conclusion

Under Accelerated Irrigation Benefit Programme (AIBP), 68 major/minor projects were included in the State since inception, of which 39 projects were completed prior to March 2013. Out of the remaining 29 projects, five were completed during 2013-18 leaving 24 projects ongoing as on March 2018.

The total fund received under AIBP were ₹ 11,541.58 crore (GoI share: ₹ 1,346.05 crore; GoM share: ₹ 10,195.53 crore) during 2013-18 against which expenditure incurred was ₹ 10,865.81 crore. The GoM delayed request for recovery of ₹ 90.08 crore towards construction and operation cost of Tillari Major Irrigation Project from Government of Goa since 2013-14. The Jalgaon Municipal Corporation (JMC) owed ₹ 757.85 crore to the Tapi Irrigation

Development Corporation towards cost involved in increasing height of Waghur dam for providing drinking water to JMC.

Out of 18 test checked projects in audit, 16 (89 per cent) were not completed within the timeline thereby defeating the very objective of accelerating the completion of irrigation projects under the AIBP. The time overrun in 18 projects ranged between five years to 10 years while the cost overrun was ₹ 7,486.50 crore.

In Wang project out of 1,922 families to be resettled only 832 were resettled while eight amenities in the 15 villages of Wang project and two amenities in one village in Dhom-Balkawadi project were not provided.

Agriculture, Animal Husbandry, Dairy Development and Fisheries Department

3.4 Recurring Loss and Nugatory expenditure

Indecision to close down Mother Dairy, Kurla and Central Dairy, Aarey, Goregaon and to accommodate the identified surplus staff and machineries in Government Milk Scheme, Worli by Dairy Development Department and Government resulted in recurring loss of ₹ 39.11 crore per annum as well as nugatory expenditure of ₹ 17.51 crore.

The Government Milk Scheme (GMS) is a departmentally managed Scheme under the administrative control of the Agriculture, Animal Husbandry, Dairy Development Department (Department), Government of Maharashtra (GoM). There are 32 GMS and 67 Chilling Centers in the state of Maharashtra. In Mumbai, there are three dairies *i.e.*, Central Dairy, Aarey, Goregaon, Mother Dairy, Kurla and Greater Mumbai Milk Scheme (GMMS), Worli with installed capacity of 2.20 lakh litres per day (llpd), 4.00 llpd and 4.50 llpd respectively.

GoM decided (2002) to hand over GMS in stages to Cooperative sector. The Department declared 5,029 posts in January 2003/May 2006 as “Surplus” in these three dairies. The General Manager (GMMS), Worli submitted (May 2007 and September 2012) a proposal to the Dairy Development Commissioner, Maharashtra State, Mumbai (Commissioner) to close down the Mother Dairy, Kurla and Central Dairy, Aarey, Goregaon and accommodate staff and machinery of the dairy in GMMS, Worli. However, no action was taken on the proposal submitted by the General Manager, GMMS, Worli.

Commissioner belatedly submitted (September 2012 and July 2013) proposal to the Department to close down Mother Dairy, Kurla and Central Dairy, Aarey, Goregaon and accommodate staff, labour and machineries as well as continue milk distribution from GMS, Worli. However, no decision has been taken at Department/Government level (October 2018).

In the meantime, out of the total original sanctioned posts of 8,542, Department sanctioned (August 2014) revised staff pattern of 4,097 posts for the Dairy Development Department which included 1,160⁴⁷ posts pertaining to

⁴⁷ Mother Dairy, Kurla: 322 posts; Central Dairy, Aarey: 270 posts and GMMS, Worli: 568 posts

these three dairies and surrendered 4,445 posts (including 645⁴⁸ surplus post of these three dairies), on the basis of the recommendations (July 2014) of a High Powered Committee⁴⁹ constituted to assess the manpower requirements of Dairy Development Department.

The dairies continued to function without any/meager milk production (market share of about 2-3 *per cent* in Mumbai). The dairy-wise summarised position of net loss, salary and non-salary expenditure as well as salary and wages on surplus staff is shown in the **Table 3.4.1**.

Table 3.4.1: Dairy-wise summarised position of net loss, salary and non-salary expenditure for the period 2014-16. (₹ in crore)

Name of Dairy and handling capacity	Actual Production of milk in litres per day (utilisation percentage)	No. of Regular Staff (excluding surplus staff)	Total Expenditure and percentage of expenditure on salary and wages	Net Loss	No. of identified Surplus Staff	Expenditure on salary and wages of surplus staff	Expenditure on electricity, water and furnace oil
Mother Dairy, Kurla (four lakh litres per day)	Nil (0 <i>per cent</i>)	239	37.83 (85)	42.91	126	7.47	1.34
Central Dairy, Aarey, Goregaon (2.20 lakh litres per day)	9777 to 11067 (5 <i>per cent</i> ⁵⁰)	216	42.64 (88)	35.32	322	10.04	2.90
GMMS, Worli (4.5 lakh litres per day)	27987 to 38901 (9 <i>per cent</i> ⁵¹)	741	81.70 (70)	70.69	197	5.91	7.79

Source: Annual Proforma Accounts for the year 2014-15 and 2015-16 of respective Dairies
Note: Annual Proforma Accounts for the year 2016-17 of three Dairies are not prepared till date

Thus, indecision on the part of the Commissioner, Dairy Development Department and Government, to close down Mother Dairy, Kurla and Central Dairy, Aarey, Goregaon and shift the machineries, as well as to accommodate the identified surplus staff of these two dairies in Greater Mumbai Milk Scheme, Worli resulted in net loss of ₹ 39.11 crore⁵² per annum as well as nugatory expenditure of ₹ 17.51 crore⁵³ on salary and wages of surplus staff and expenditure of ₹ 4.24 crore on electricity, water and furnace oil.

Government stated (July 2018) that to reduce the losses and run government dairy units from a business point of view, Government decided (November 2017) to renovate the GMS through public private participation (PPP). On receipt of report from technical consultant, the proposal will be submitted to Government.

⁴⁸ Mother Dairy, Kurla: 126 posts; Central Dairy, Aarey: 322 posts and GMMS, Worli: 197 posts

⁴⁹ The High Power Committee was headed by the Chief Secretary to the GoM

⁵⁰ $11,067/2,20,000\%=5.03$

⁵¹ $38,901/4,50,000\%=8.64$

⁵² Mother Dairy, Kurla, Mumbai ₹ 42.91 crore + Central Dairy, Aarey, Goregaon, Mumbai ₹ 35.32 crore = ₹ 78.23 crore ÷ 2 = ₹ 39.11 crore

⁵³ Mother Dairy, Kurla, Mumbai ₹ 7.47 crore + Central Dairy, Aarey, Goregaon, Mumbai ₹ 10.04 crore = ₹ 17.51 crore

Government should consider further rationalisation of staff in the dairies proposed to be closed down in the light of meager supply of milk by these dairies.

WATER RESOURCES DEPARTMENT

3.5 Fraudulent Payment

Fraudulent payment of ₹ 12.21 crore against purported supply of material, which had actually never been supplied or brought to the work-site.

Uma barrage project (UBP) envisaged construction of barrage across Uma river in Akola district with a view to irrigate 5,510 hectares of land.

Appendix 24 of the Maharashtra Public Works Manual (Manual) stipulated that the payments to contractors or suppliers were to be made on ascertaining the quantity of work done (including supplies made) and the quality of the works done i.e. whether the work had been done according to the specifications laid down or not. These details should be recorded in measurement book. Further, the person recording the measurements must satisfy himself by personal verification on the spot that each dimension that he was writing down in the measurement book did actually measure to the extent noted. Measurement book was thus, the basis of account of all quantities of work executed or material supplied. Measurement book should be maintained carefully being a very important account record as it may have to be produced as evidence in a Court of Law.

According to Rule 11 of Schedule of Power, referred in the Manual, the Sub-Divisional Engineer should exercise 100 *per cent* check on such measurements recorded by the Junior Engineer and the Executive Engineer must exercise at least five *per cent* check of the final measurements.

The work of „Providing and fixing vertical lift type service gates and allied works’ of the UBP was awarded (October 2009) by the Executive Engineer (EE), Minor Irrigation Division No. 2, Akola (Division) to a contractor at a tender cost of ₹ 16.20 crore (4.95 per cent above the estimated cost of the work). The work was stipulated to be completed in 24 months (October 2011). It was, however, extended up to June 2016. The contractor was paid ₹ 15.28 crore for the work executed till March 2012 (4th running account bill). Thereafter, the work stopped from July 2012 due to failure of the contractor to execute the work as per schedule. The compensation⁵⁴ from 01.07.2014 under Clause 2 of the contract was also levied on the contractor. But, it could not be recovered from the contractor.

Scrutiny (September 2017) of records of the Division revealed that during joint measurement (December 2015) of the work conducted by the officials of the division as well as by the contractor’s representatives, it came to light that the contractor had executed the work of ₹ 3.07 crore only against the actual

⁵⁴ Compensation at the rate of ₹ 10,000 per day from 01.07.2014 and later, it was raised to ₹ 20,000 per day from 07.11.2014, was levied under Clause 2 of the contract because of the continued non performance by the contractor. The amount of compensation due from the contractor was worked out to be ₹ 1.22 crore as of August 2017

payment of ₹ 15.28 crore made to him. The payment of ₹ 15.28 crore was made on the basis of measurements recorded in the measurement book by Assistant Engineer, authenticated by the Sub-Divisional Engineer and the abstract was signed by EE. Out of ₹ 15.28 crore paid to the contractor, ₹ 12.21 crore was paid against the purported supply of material, which had actually never been supplied or brought to the work-site. When this was communicated (March 2016) to the contractor after joint measurement (December 2015), the contractor accepted the deficiency and agreed (July 2017) to supply the material. This indicated that the recordings made in the measurement book by the Sub-Divisional Engineer were baseless and thus doubtful. As of December 2017, neither the material found short was supplied by the contractor nor the cost of material recovered from the contractor by the Division.

Thus, incorrect measurement and wrong authentication of measurement books by the Assistant Engineer and non-conduct of mandatory inspection by the Sub-Divisional Engineer resulted in fraudulent payment of ₹ 12.21 crore. This also indicated the lack of monitoring by the EE.

In reply, the Government agreed with the Audit and stated (November 2018) that the contract was terminated and contractor's security deposit of ₹ 94.46 lakh had been forfeited. Initiating disciplinary action against responsible officials was under consideration and instructions had been issued for filing FIR against contractor and erring officials.

Thus, despite knowing the fact, no punitive action against the erring officials as well as contractor had been taken (November 2018).

3.6 Delay in acquisition of land

Paragraph 251 of Maharashtra Public Works manual provides that no work should be commenced on land which has not been duly made over by the responsible civil officer. When tenders for works are accepted but the land required for the purpose is still to be acquired, the time that should be allowed for the acquisition of the land should be ascertained from the Collectors concerned before orders to commence the works are issued.

3.6.1 Injudicious payment – Commencement of work without acquisition of required land resulted in blocking of ₹ 2.18 crore on account of secured advance. Besides, ₹ 14.66 crore incurred on works proved to be unproductive.

Administrative approval for Lower Pedhi Major Irrigation Project⁵⁵ in Amravati district was accorded (August 2004) by Government of Maharashtra for ₹ 161.17 crore. This sanction was subsequently revised (August 2009) to ₹ 594.75 crore.

The work of construction of left bank main canal (one of the components of the project) comprising of earthwork, lining and structures from km one to 15 of the Lower Pedhi Project was awarded (August 2009) to a contractor for ₹ 81.23 crore (13.45 *per cent* above the estimated cost) with the stipulated period of completion of 36 months (August 2012) from the date of issue of

⁵⁵ Construction of dam, canals and distributaries

work order. However, extension was granted upto June 2019 for completion of work. The contractor was paid ₹ 19.24 crore⁵⁶ till October 2017 (13th running account bill).

Scrutiny (August 2017) of the records of Amravati Project Construction Division No.1, Amravati (APCD) revealed that the division paid (January-February 2010) secured advance of ₹ 3.19 crore to the contractor for 1210 MT of steel brought to the site of the work. Out of that, steel of 827.05 MT costing ₹ 2.18 crore was still lying unutilized and idle on the site of the work even after lapse of eight years of its procurement (August 2018). Slow progress of work was mainly due to delay in acquisition of land. Out of 89.58 hectares of land to be acquired, 62.95 hectares was acquired during 2009-10 to 2011-12 and 23 hectares was further acquired upto 2017-18. Four hectares of land was yet to be acquired.

Meanwhile, in consonance with the Government Resolution (February 2017) encouraging use of pipeline instead of conventional open canal system due to prevalent land acquisition problems across the State, the Chief Engineer, Special Project, Water Resources Region, Amravati sent (September 2017) a proposal to the Vidarbha Irrigation Development Corporation, Nagpur (VIDC) for adopting 'pressurized pipeline distribution irrigation system' instead of conventional canal irrigation system. The proposal had been accepted by the Governing Council of VIDC and further sent (October 2017) to Government for approval, which was approved (March 2018).

Thus, awarding of work without acquisition of required land of 89.58 hectares and payment of secured advance of ₹ 3.19 crore for such a huge quantity of steel in the initial stage of the work without assessing the progress of the work was not a prudent decision on the part of the division. This has resulted in idling of steel of ₹ 2.18 crore for past eight years. Moreover, expenditure of ₹ 14.66 crore incurred on the work till date proved to be unproductive as it could not be put to use due to slow progress of the work.

In reply, the Government accepted (December 2018) the audit findings and stated that there was inaction on part of the Division in respect of land acquisition for the canal even after issue of work order. The process of land acquisition was not initiated at the time of granting secured advance and as such steps were being taken to initiate departmental enquiry against the concerned officials. However, Government did not reply on unutilized steel.

3.6.2 Unfruitful expenditure of ₹ 3.54 crore on excavation and dewatering works owing to non-acquisition of required land for Lower Penganga Project.

Government of Maharashtra accorded (1997) administrative approval for ₹ 1,402.43 crore to Lower Penganga Project (LPP), a major inter-state irrigation project benefiting Yavatmal and Chandrapur districts of Maharashtra and Adilabad district of Telangana. The revised administrative approval was granted (2009) by Vidarbha Irrigation Development Corporation, Nagpur (VIDC) for ₹ 10,429 crore.

⁵⁶ Cost of work executed: ₹ 14.66 crore + Unadjusted Secured Advance: ₹ 2.18 crore = ₹ 16.84 crore + Mobilisation Advance : ₹ 2.40 crore = ₹ 19.24 crore

Work of construction of dam⁵⁷ under LPP was awarded (August 2009) to a contractor at 10.75 *per cent* above the estimated cost of ₹ 319.96 crore with the stipulated period of completion of 72 months (August 2015). However, the work actually started in October 2011 i.e. after more than two years from issue of work order due to problems with land acquisition, public resentment and paucity of funds. It was eventually stopped by the contractor in May 2012. The contractor was paid (June 2013) ₹ 4.04 crore for the work executed.

Scrutiny of records (March 2017 and February 2018) of the LPP Division, Yavatmal revealed that out of total land of 19,130 ha required for the project, only 327 ha (less than two *per cent*) of land was acquired upto 2009-10 (year of issue of work order); 758 ha (four *per cent*) of land was acquired upto 2012-13 (year in which work was stopped) and 1,768 ha (nine *per cent*) of land was acquired till March 2018. Thus, the land acquisition which was initiated in 2008-09, could not be achieved at the required pace. As a result, work could not start on time and delayed by two years. Further, it was stopped in May 2012 and the contractor sought (April 2016) withdrawal from the contractual obligation under clause 15(2)⁵⁸ of the general conditions of the contract, which was approved (December 2016) by the Executive Director, VIDC. Out of ₹ 4.04 crore paid to the contractor, ₹ 0.50 crore was incurred on approach road and downstream bridge whereas the remaining amount of ₹ 3.54 crore was incurred on excavation and dewatering works. Thus, despite knowing the status of land acquisition before hand, the work was taken up and subsequently terminated abruptly which rendered the expenditure of ₹ 3.54 crore incurred on excavation and dewatering works unfruitful.

It is pertinent to mention here that even before the commencement of the dam work by the contractor in October 2011, the Chief Engineer (CE), WRD, Amaravati had communicated (August 2010) to the VIDC that the possibility to get ample funds for this project was very remote since there was no physical and financial backlog⁵⁹ of irrigation potential in Yavatmal district; and two major projects such as Bembla and Arunavati were already under execution in the district. He had also suggested (August 2010) to cancel the work order.

In reply, the Government stated (November 2018) that ₹ 4.04 crore incurred on dam work was not wasteful being capital investment and was supposed to be utilized in the project in the future.

The reply of the Government was not tenable as in the backdrop of the land acquisition status, which was less than two *per cent* of required land upto the year of issue of work order i.e. 2009-10, the work of the dam should not have been taken up. Moreover, CE's suggestion (August 2010) in the matter was

⁵⁷ Construction of central gated spillway, stilling basin, non overflow sections, earthwork of right and left flanks of earthen dam and irrigation outlet of Lower Penganga Project

⁵⁸ Clause 15 (2) of the general conditions of the contract stipulated that where the total suspension of work ordered continued for continuous period exceeding 90 days for any reason whatsoever other than the default on the part of the contractor, the contractor shall be at liberty to withdraw from the contractual obligations under the contract so far as it pertains to the unexecuted part of the work by giving a 10 days prior notice in writing to the Engineer

⁵⁹ Backlog zone is created to ensure equitable allocation of funds for development of all the regions of Maharashtra by working out the physical and financial backlog based on Irrigation Potential created vis-a-vis net sown area in the State

also overlooked. Further, expenditure of ₹ 3.54 crore incurred on excavation and dewatering works was going to be unfruitful as the earthwork done was prone to be washed away with passage of time.

3.6.3 Unfruitful expenditure-The objectives of Lower Tapi Project could not be fulfilled owing to slow progress of land acquisition and tardy implementation of construction of dam and gate works thereby rendering the expenditure of ₹ 235.02 crore incurred on the project unfruitful.

Water Resources Department, Government of Maharashtra accorded (March 1997) administrative approval to the Lower Tapi Project consisting of construction of an earthen dam with central masonry spillway across Tapi river in Jalgaon district for storage of water for irrigation through lift irrigation schemes on either banks of Tapi river for ₹ 142.65 crore. However, the project underwent multiple revisions, the latest revised administrative approval (third time) was accorded (September 2009) for ₹ 1,127.74 crore.

The Lower Tapi Project Division (LTP), Chopda (division) awarded (April 1999) the work of dam⁶⁰ to a contractor at 12.96 *per cent* above the estimated cost i.e. for ₹ 64.29 crore with the stipulated period of completion of 84 calendar months (April 2006). However, due to non-finalization of design of piers⁶¹, the work could not be completed on time and was extended from time to time; the latest extension has been given upto March 2020. The contractor was paid ₹ 148.39 crore for the work executed up to March 2017 (67th running account bill).



Incomplete civil work of dam

Incomplete civil work of dam

Scrutiny of records (December 2016) of division revealed that against the total land requirement of 7,261⁶² hectares the division could acquire only 629 hectares (8.66 *per cent*) of land during 19 years i.e. 1999 to 2018 since the work was allotted. Further, out of required land of 6,913 hectares for the submergence area, only 404 hectares (5.84 *per cent*) of land had been acquired by the department as of November 2018, thus, even after completion of the civil work of the dam it was not possible to store water.

Meanwhile, a separate tender for the work of gates⁶³ was awarded (March 2009) to another contractor at 4.98 *per cent* above the estimated cost of ₹ 195.01 crore to be completed in 84 months (February 2016). The

⁶⁰ Construction of earthen dam, spillway, guide wall, energy dissipation arrangement of Lower Tapi Project

⁶¹ A pier is an upright support for a structure or superstructure such as an arch or bridge

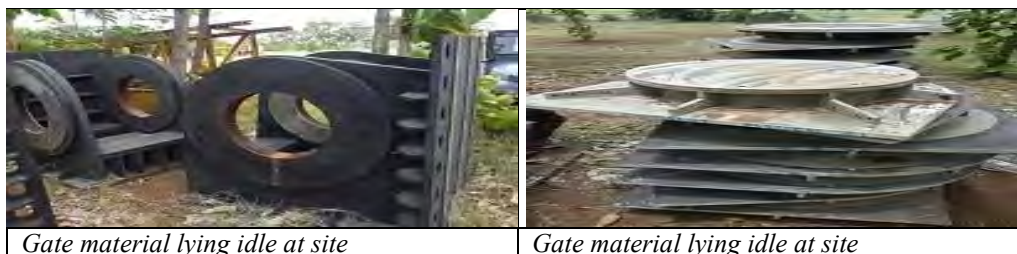
⁶² Government land: 2,663 ha, Private land: 4,595 ha and Forest land: 3.12 ha

⁶³ Work of Design, Fabrication, supply, Erection, Testing and commissioning of 23 nos. of radial gates and stop log gates and goliath crane including sand blasting and painting *etc.* for Lower Tapi Project

contractor was paid ₹ 86.63 crore for the work till March 2018 (12th running account bill).

It was further observed that owing to revised flood study, the design and drawings of the radial gates and stop log gates were required to be revised and approved by the Central Design Organisation (CDO), Nashik. Therefore, the Division intimated (October 2014) the contractor to stop the work. By that time, nearly 44 *per cent* of the gate work had been completed. The revised design and drawings of the radial gates and stop log gates were sent to CDO, Nashik for approval in August 2016, after a delay of almost two years, which were approved (November 2017). However, time extension upto March 2020 for completing the remaining work as per the revised design and drawings was granted in March 2018. In the absence of approved revised design and drawings, the work was stalled from October 2014. Thus, quantum of gate work executed for this project was lying unutilized since last four years thereby resulting in blocking of ₹ 86.63 crore.

It is pertinent to mention here that the grounds on which revised flood study undertaken were not found on record. Moreover, there was no information available to ascertain the possibility of the quantum of completed gate work that could be utilised in the revised design and drawings of gates.



It was also observed that as against an amount of ₹ 1,127.74 crore of revised administrative approval for the entire project, as of March 2018, an amount of ₹ 412.50 crore (36.58 *per cent*) only was received since inception (1998-99) of the project. Thus, expenditure of ₹ 148.39 crore incurred on civil work of dam and ₹ 86.63 crore incurred on mechanical work of gates remained unfruitful due to failure of the department to acquire the required land and non-finalization of revised design of gate work and construction work.

The division stated (December 2016) that the construction work was stopped from time to time due to lack of funds. It was further stated that design of various radial gate components was submitted (August 2016) to CDO, Nashik for vetting which would be finalized shortly. After finalization of design of gate components, pier design, construction work would be finalized.

Reply of the division was silent on the critical issue of land acquisition which was only 8.66 *per cent* of required land and moreover, there was no dearth of funds for the project as the quantum of yearly funds demanded was provided/ released. Thus, due to tardy implementation of the project, the entire expenditure of ₹ 235.02 crore (₹ 148.39 crore + ₹ 86.63 crore) incurred on civil work of dam as well as on gate work proved unfruitful.

Matter was referred (May 2018) to the Government; their reply was awaited (January 2019).

3.7 Excess payment

Excess payment of ₹ 2.54 crore was made to contractor due to payment at higher rates than tendered rates in Sapan Project.

Work of Construction of earthen dam from RD 110 M to 165 M and from RD 240 M to 1,110 M including gated spillway along with approach and tail channel and Head Regulator for Sapan River Project in Taluka Achalpur of Amravati District was awarded (October 2000) to a contractor at a contract cost of ₹ 36.75 crore which was 21 *per cent* below the estimated cost of ₹ 46.52 crore. The work was stipulated to be completed in 72 months (September 2006). The latest payment made to the contractor was ₹ 281.45 crore (May 2017) for the work executed up to the 126th running account bill (RAB).

Clause 14 of the contract stipulated that any additional work on account of any alteration in specifications and designs suggested by the Executive Engineer shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work and at the same rate as specified in the tender for the main work; and if the additional and altered work included any class of work of which no rate was specified in the contract, such class of work should be carried out at the rates entered in the schedule of rates of the division or at the rates mutually agreed upon between the Engineer-in-charge and the contractor, whichever was lower.

During the execution of work, as per the instructions (May 2005) of the Government the design/height of the spillway of the main work was changed due to which the quantum of one of the item number 29⁶⁴ of tendered work increased substantially from 4,064 quintals to 8,881 quintals. The payment for execution of increased quantity of this item was to be made at tendered rate⁶⁵ by applying clause 14 for the quantity upto 125 *per cent* of tendered and beyond 125 *per cent* at current rate by applying clause 38⁶⁶ of the contract.

Audit scrutiny revealed (July 2017) that Superintending Engineer, Upper Wardha Project Circle, Amravati sanctioned (November 2015) the payment for entire executed quantity of 8,880.66 quintals of item no. 29 at current rate⁶⁷ by treating it as new item instead of application of tendered rates in terms of

⁶⁴ ,Providing and laying HYSD (High Yield Strength Deformed Bars) reinforcement including cutting, bending, hooking, binding with ennaled wire fixing in position including cost of binding wire as per design *etc.* complete with all leads and lifts as directed and as per specification with contractor's own materials'

⁶⁵ ₹ 2,167 per quintal

⁶⁶ As per clause 38 of the contract, the contractor shall, if ordered in writing by the Engineer-in-charge to do so, carry out any items of work beyond 125 *per cent* of the tender quantity in accordance with the specifications in the tender. The contractor will be paid at the tender rate for the quantity up to 125 *per cent* and for the quantity beyond 125 *per cent* of the tendered quantity, he will be paid at the rates (i) derived from the rates entered in current schedule of rates and in the absence of such rates (ii) at the rates prevailing in the market. It was, however, mentioned in the clause that the (above or below) percentage, as agreed upon in the contract agreement, would also be applied on the current schedule of rates/market rates

⁶⁷ Current rates derived by department as follows:

Year	2005-06	2006-07	2007-08	2008-09
Revised rate (In ₹/quintal)	4383	4383	4834	5259

Clause 14 and 38 of contract. It was also observed that the payment was made to the contractor at ₹ 6,909.37/quintal for the work executed during 2008-09 against the sanctioned revised current rate of ₹ 5,259.20/quintal on the pretext that the increased required quantity of steel was not available at Amravati and the same had been procured from Raipur (Chhattisgarh) about 440 km from Amravati.

Thus, payment at current rates instead of at tendered rates for the quantity upto 125 *per cent* of tendered quantity and at higher rate (₹ 6,909.37/quintal) instead of at current rate (₹ 5,259.20/quintal) for the quantity executed during 2008-09 resulted in excess payment of ₹ 2.54 crore to the contractor as mentioned in **Table 3.7.1**.

Table 3.7.1: Details of payment made

(Figures in ₹)

	Quantity (Quintals)	Payment made at revised rate	Payment admissible at tendered/current rate on application of clause 38	Excess payment made
Item no. 29-Providing and laying HYSD reinforcement	8880.66	54043918 ⁶⁸	28685035 ⁶⁹	25358883

Executive Engineer, AMPD, Amravati (division) stated (July 2017) that the design of the spillway and scope of work changed completely and it was approved by the Government in May 2005 and hence it was necessary to invoke Clause 14 for the betterment of the project and to complete the early creation of irrigation potential in backlog area.

The reply of the division was not acceptable as the item sanctioned was already existed in Schedule-B of the tender agreement and hence the payment to the contractor should have been made at tendered rates (₹ 2,167/quintal) for the quantity upto 125 *per cent* of tendered quantity in accordance with Clause 14 of the Contract and remaining quantity at current rates in terms of Clause 38 of contract. Moreover, payment was made to the contractor at ₹ 6,909.37/quintal for the work executed during 2008-09 as against the current rate of ₹ 5,259.20/quintal.

Matter was referred (April 2018) to the Government, their reply was awaited (January 2019).

3.8 Excess payment

Incorrect revision of rate analysis resulted in excess payment of ₹ 16.13 crore to the contractor.

Work of Construction of Chichdoh Barrage⁷⁰ was administratively approved (June 2009) for ₹ 282.73 crore by the Vidarbha Irrigation Development Corporation (VIDC), Nagpur. Later, first Revised Administrative Approval was accorded by the VIDC, Nagpur in July 2016 for ₹ 597.44 crore.

⁶⁸ 1,607.34 quintals paid @ ₹4,383.05 per quintal in 2005-06 and 2006-07; 1,568.98 quintals paid @ ₹4,834.65 per quintal in 2007-08 and 5,704.34 quintals @ ₹6,909.37 per quintal (higher than current rate ₹5,259) in 2008-09

⁶⁹ 5,080 quintals [125% of tendered quantity (4,064 quintals)] @ ₹2,167 per quintal= ₹1,10,08,360 – 21% (tender *per cent*) = ₹86,96,604–(A) plus 3,800.66 quintals (quantity beyond 125% i.e. 8,880.66 – 5,080) @ ₹5,259.20 per quintal = ₹1,99,88,431– (B) = ₹2,86,85,035 – (A + B)

⁷⁰ Along with approaches, spillway and gate works across Wainganga river at Chamorshi Taluka in Gadchiroli district

Executive Engineer (EE), Minor Irrigation Division (MID), Chandrapur (Division) issued (March 2011) work order for construction of Chichdoh barrage to a contractor at 7.95 *per cent* above the estimated cost of ₹ 245.27 crore with the stipulated period of completion of 60 months (March 2016). Extension to the work was accorded (February 2016) up to June 2018. The contractor was paid (March 2018) ₹ 460.30 crore for the work executed up to 53rd running account bill.

Scrutiny of records (May 2017) of the Division revealed that the Chief Engineer (CE), Water Resources Department (WRD), Nagpur requested (August 2009) the CE (Mechanical), WRD, Nashik, for deriving the rate analysis for manufacturing and erection of vertical lift (VL) gates for the Chichdoh barrage. Accordingly, the CE (Mechanical), WRD, Nashik approved (August 2009) the same, considering that the gates would be fabricated in a workshop. But it was subject to the condition that charges such as transportation, inspection, insurance and VAT may be revised appropriately according to the condition of the project site at CE, WRD, Nagpur level. However, while finalizing the rates of the VL gates, the Division revised (August 2009) the approved rate analysis by incorporating the modified rates for taxes, overhead and inspection charges and indicating some new items, on the basis that the fabrication of gates was to be done at work site instead of workshop. Based on this, technical sanction was accorded (August 2009) by the CE, WRD, Nagpur.

Audit observed that:

- As the gates were to be manufactured at work site, yard and workshop charges ranging from ₹ 4,096 per MT to ₹ 7,450 per MT and generator charges at ₹ 6,040 per MT were included in the rate analysis of gates by the Division. However, the workshop charges ranging from ₹ 3,086 per MT to ₹ 14,621 per MT which had been included in the earlier rate analysis considering the fabrication at a workshop, were not deducted. This resulted in double payment amounting to ₹ 6.15 crore to the contractor (**Appendix 3.8.1**).
- Crane charges for erection of gates ranging from ₹ 3,096 per MT to ₹ 6,192 per MT were included as an additional charge in the rate analysis by the Division. Since, erection charges include all the allied components related to erection of the gates and were already being worked out ranging from ₹ 18,020 per MT to ₹ 26,047 per MT, loading of additional charges for crane in the rate analysis was unwarranted and thereby resulted in excess payment of ₹ 5.56 crore to the contractor (**Appendix 3.8.2**).
- In the approved rate analysis overhead charges (ranging from ₹ 6,021 per MT to ₹ 12,525 per MT) was applied on fabrication cost of the gates. However, in modified rate analysis the Division applied the overhead charges (ranging from ₹ 10,330 per MT to ₹ 18,229 per MT) on total cost i.e. fabrication cost including taxes, transportation, insurance and inspection. This resulted in additional payment of ₹ 4.42 crore to the contractor due to loading of overhead charges on total cost of gate (**Appendix 3.8.3**).

In reply, Government stated (November 2018) that the tender was awarded through competitive bidding hence stand alone scrutiny of single item and its rate analysis may not withstand as the contractor would have quoted his rates considering all items and rates put to tender.

The reply of the Government was not tenable as the division should have considered new charges after deduction of old charges in the revised rate analysis considering the site condition. Thus, incorrect revision of rate analysis by non-deduction of workshop charges, undue loading of crane charges; and loading of overhead charges on total cost instead of fabrication cost resulted in excess payment of ₹ 16.13⁷¹ crore to the contractor.

Public Works Department

3.9 Unfruitful expenditure

Tardy implementation of the work resulted in unfruitful expenditure of ₹ 7.76 crore due to non-completion of bridge even after lapse of nine years. Moreover, the very objective of providing all weather road connectivity between Chikalthana and Bhatkheda villages was defeated.

Public Works Department, Government of Maharashtra (GoM) accorded (June 2008) administrative approval to the work of Construction of a High Level Bridge across Manjara River at Chikalthana-Bhatkheda Road (work) in Latur district for ₹ 6.86 crore with a view to provide an all weather road connectivity between Chikalthana and Bhatkheda villages in Latur district.

Chikalthana village is situated on the left bank of Manjara river, while its cultivated lands are on the right bank of the river. As the site fell under the submergence of Khulgapur barrage (across Manjara River), there was standing water for a period of six to eight months in a year and hence, it was considered essential to construct a high level bridge to satisfy the need of the two villages Chikalthana and Bhatkheda for all weather connectivity.

Scrutiny of records of the Executive Engineer, Public Works Division, Latur (Division) revealed (December 2017) that the work was awarded (February 2009) to a contractor at 4.35 *per cent* above the estimated cost of ₹ 7.45 crore put to tender with the stipulated period of completion of 12 months (February 2010), which was later extended up to July 2013. However, the work remained incomplete and the contractor was paid ₹ 6.97 crore for the work executed up to June 2016 (21st running account bill).



Source:- Photo of the incomplete high level bridge taken in February 2018

⁷¹ ₹ 6.15 crore + ₹ 5.56 crore + ₹ 4.42 crore

Meanwhile, a proposal for revised administrative approval was sent (July 2015) to GoM for ₹ 11.59 crore to approve a Submersible Bridge of Full Tank Level of 583.50 M proposed against High level Bridge of observed high flood level of 587 M originally approved in AA. The proposal was approved (November 2018) and an amount of ₹ five crore was sanctioned for the balance work by the Government in the Supplementary Budget 2018-19. Besides, a proposal for extension up to July 2016 was also made (August 2015) on the ground that the site of the work was inundated with water of the Khulgapur barrage.

The reasons for change in scope of the bridge in the proposal of revised AA from high level to submersible were not available with the Division.

It was further observed that 25 *per cent* of bridge work and 100 *per cent* of approach road work was yet to be executed (November 2018) despite the fact that an expenditure of ₹ 7.76⁷² crore on civil work and land acquisition had been incurred. Thus, the very purpose of providing all-weather connectivity between Chikalhana and Bhatkheda villages stands defeated.

The Government stated (November 2018) that as the site of the bridge was under submergence, the progress of the work was affected due to standing water for a period of six to eight months every year. However, the construction work of seven piers out of nine piers was completed and that of abutment was in progress. Further, it was stated that new tender for balance work would be invited and the balance work would be completed by May 2019.

The reply of the Government was not in consonance with the facts that the condition of the site was known at the initial stage and with adequate planning and design, it could have been overcome. However, the work of the bridge could not be completed even after a lapse of nine years due to tardy implementation besides an expenditure of ₹ 7.76 crore incurred on bridge proved to be unfruitful.

3.10 Blocking of fund

Failure to get the work of submersible bridge across Godavari river executed from the contractor and non-completion of remaining portion of the work for last five years resulted in blocking of ₹ 1.83 crore.

Government of Maharashtra accorded (October 2008) administrative approval to the work of „construction of submersible bridge across Godavari river on Nagamthan-Bhagur-Lasur road (SH-180) for ₹ 6.00 crore. Technical sanction to the work was granted (May 2010) for ₹ 5.83 crore. The Executive Engineer (EE), Public Works Division (West), Aurangabad (division) awarded (February 2011) the work to a contractor at 9.9 *per cent* below the estimated cost put to tender i.e. for ₹ 5.25 crore. The work was stipulated to be completed in 24 months i.e. by February 2013. The contractor was paid (March 2013) ₹ 1.83 crore for the work executed up to fifth running account bill.

Clause 15 (2) of the general conditions of the contract stipulated that where the total suspension of work stretches for a continuous period exceeding

⁷² Cost on works: ₹ 6.97 crore and Cost on land acquisition: ₹ 0.79 crore

90 days for any reason, whatsoever, other than the default on the part of the contractor, the contractor shall be at liberty to withdraw from the contractual obligations under the contract so far as it pertains to the unexecuted part of the work by giving a 10 days prior notice in writing to the Engineer.

Further, additional condition number 61 of the contract, agreed upon by the contractor, provided that the payment of bills would be made as per the availability of funds. No claims would be entertained for delayed payments.

Scrutiny of records (February 2018) of the division revealed that although the work order was issued in February 2011, the contractor started the work only in March 2012. The contractor stopped the work in July 2012 after completing almost 30 *per cent* of the work. However, the division requested (August 2012) the contractor to start the work immediately and also suo-moto gave (May 2013) extension to the work up to March 2014.

Meanwhile, the contractor requested (February and June 2013) the division to withdraw the work under Clause 15 (2) citing the reason of delayed payment of previous bills. Accordingly, the EE/SE submitted (October 2013) the proposal for cancellation of agreement of the work to the Chief Engineer, Public Works Region, Aurangabad (CE) for approval, wherein it was also stated that the remaining portion of the work would be completed after inviting a new tender. The CE approved (January 2014) the proposal and instructed the division that since the fund was available for the work during the year 2013-14, the same should immediately be utilized for completing the remaining portion of the work after inviting new tender. However, the process of re-tendering for the remaining portion of the work was completed as late as in July 2015 and as the lowest bidder quoted a rate at 43 *per cent* above the estimated cost, it was sent (July 2015) to Government for approval. Government did not approve the same and instructed to prepare revised estimates. As of April 2018, the estimates had been prepared for the balance work and approval of CE was awaited.

As apparent, the division did not take any action against the contractor for not starting the work or non-execution of work as per agreement. Division neither imposed penalty under Clause 2⁷³ of the contract for delaying the execution of work nor withdrawn the work on risk and cost of the contractor under Clause 3 C. On the contrary, acceptance of contractor's request for withdrawal of work under clause 15 (2) of contract was not justified as contractor himself delayed the execution of work.

Thus, failure of the division to get the work executed from the contractor and non-completion of remaining portion of the work for last five years resulted in blocking of fund to the tune of ₹ 1.83 crore, incurred on the construction of the bridge. In addition, due to passage of time not only the cost of balance work increased but also the condition of executed work got deteriorated, as seen from the photographs below.

⁷³ In the event of the contractor failing to carry out the work within the time frame as entered in the tender, he shall be liable to pay as compensation an amount equal to one *per cent* or such smaller amount as the Superintending Engineer (whose decision in writing shall be final) may decide for every day provided that total amount of compensation to be paid shall not exceed 10 *per cent* of the estimated cost of the work as shown in the tender



In reply, the Government stated (November 2018) that as the design of the bridge got approved in February 2012, the work could not be started earlier. Further, there was delay in payment of bills to the contractor due to paucity of fund. However, the contract for the balance work was awarded and the remaining work would be completed by May 2019 as the work executed by previous contractor was in good condition.

The reply of the Government was not tenable as the division could have insisted the contractor to start the initial work such as excavation and ancillary works in time so as to complete the work as per time schedule and moreover, the contractor raised all his bills in 2012-13 and the same were paid upto March 2013 leaving a meager balance of ₹ 1.03 lakh. Thus, withdrawal of work under clause 15 (2) of contract citing the reasons of delayed payment of contractor's bills was not justified as contractor himself delayed the execution of work and poor monitoring and lackluster attitude of the department resulted into non-completion of the bridge.

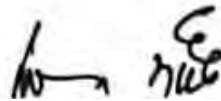
Nagpur
The 14th June, 2019



(HEMA MUNIVENKATAPPA)
Accountant General (Audit)- II,
Maharashtra, Nagpur

Countersigned

New Delhi
The 18th June, 2019



(RAJIV MEHRISHI)
Comptroller and Auditor General of India

APPENDICES

Appendix 1.1

(Reference : Paragraph 1.7.1; Page : 7)

Department-wise outstanding Inspection Reports/Paragraphs issued upto December 2017 but outstanding as on 30 June 2018

Sr.No.	Name of Department		Upto 2012-13		2013-14		2014-15		2015-16		2016-17		2017-18		Total	
			IR	Paras	IR	Paras	IR	Paras	IR	Paras	IR	Paras	IR	Paras	IR	Paras
1	Agriculture, Animal Husbandry, Dairy Development and Fisheries	Nagpur	282	687	33	107	30	114	19	48	14	45	10	33	388	1034
		Mumbai	79	199	19	76	11	32	12	63	25	136	2	19	148	525
		Total	361	886	52	183	41	146	31	111	39	181	12	52	536	1559
2	Co-operation and Textile	Nagpur	161	277	24	70	13	39	8	21	0	0	7	20	213	427
		Mumbai	128	292	7	38	2	6	5	25	8	44	2	15	152	420
		Total	289	569	31	108	15	45	13	46	8	44	9	35	365	847
3	Food and Civil Supplies and Consumer Protection	Nagpur	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Mumbai	47	83	0	0	1	7	0	0	2	8	27	255	77	353
		Total	47	83	0	0	1	7	0	0	2	8	27	255	77	353
4	Industry, Energy and Labour	Nagpur	35	69	1	4	4	15	7	25	1	10	0	0	48	123
		Mumbai	38	89	4	20	6	46	4	17	5	26	1	20	58	218
		Total	73	158	5	24	10	61	11	42	6	36	1	20	106	341
5.	Public Works	Nagpur	123	244	39	194	29	132	24	87	21	70	29	97	265	824
		Mumbai	167	306	25	78	26	133	30	239	34	240	10	87	292	1083
		Total	290	550	64	272	55	265	54	326	55	310	39	184	557	1907
6	Tourism & Cultural Affairs	Nagpur	2	2	1	3	1	6	0	0	0	0	0	0	4	11
		Mumbai	14	40	1	7	1	11	2	9	1	6	0	0	19	73
		Total	16	42	2	10	2	17	2	9	1	6	0	0	23	84
7	Water Resources	Nagpur	452	985	33	132	49	201	66	237	48	148	38	136	686	1839
		Mumbai	125	341	0	0	0	0	7	39	7	55	3	15	142	450
		Total	577	1326	33	132	49	201	73	276	55	203	41	151	828	2289
8	Forest	Nagpur	110	219	14	29	16	47	14	41	13	34	13	41	180	411
		Mumbai	70	176	1	8	2	11	6	33	7	45	8	30	94	303
		Total	180	395	15	37	18	58	20	74	20	79	21	71	274	714
Grand Total			1833	4009	202	766	191	800	204	884	186	867	150	768	2766	8094

Appendix 1.2

(Reference Paragraph 1.7.3 : Page:8)

Statement showing number of paragraphs/reviews in respect of which Government explanatory memoranda (UORs) had not been received

Sr. No.	Name of Department	Upto 2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1.	Agriculture, Animal Husbandry, Dairy Development and Fisheries	03	--	--	--	--	02	05
2.	Public Works	--	--	--	01	--	02	03
3.	Forest	01	--	--	--	--	--	01
4.	Tourism and Cultural Affairs	--	--	--	--	--	--	--
5.	Water Resources	01	02	01	01	--	08	13
6.	Industries, energy and Labour	--	--	--	--	--	--	--
7.	Food, Civil Supplies and Consumer Protection	--	--	--	--	--	01	01
8.	Co-operation, Marketing and Textile	--	--	--	--	--	02	02
	Total	05	02	01	02	--	15	25

Appendix 1.3*(Reference : Paragraph 1.7.3: Page: 9)***Department wise position of PAC recommendations on which Action Taken Notes were awaited**

Sr. No.	Name of the Department	1985-86 to 2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	Agriculture, Animal Husbandry, Dairy Development & Fisheries	35	--	02	02	--	--	--	--	--	--	--	39
2	Public Works	14	02	12	04	--	--	--	47	--	--	--	79
3	Food and Civil Supplies and Consumer Protection	--	--	--	--	--	--	32	--	--	--	--	32
4	Forest	--	01	--	--	--	--	--	--	--	--	--	01
5	Tourism and Cultural Affairs	--	--	--	--	--	--	--	--	--	--	--	--
6	Water Resources	43	--	07	06	--	09	--	26	--	--	--	91
7	Co-operation and Textile	04	--	--	02	--	--	--	--	--	--	--	06
8	Industries, Energy and Labour	21	--	--	--	--	--	--	12	--	--	--	33
	Total	117	03	21	14	--	09	32	85	--	--	--	281

Appendix-2.1.1

(Reference : Paragraph 2.1.5: Page: 14)

Expenditure on inputs in respect of Agriculture Department for the period from 2013-14 to 2017-18

(₹ in crore)

Year	Total Expenditure	NFSM	MI	NMOOP	SMAM	Total Expenditure of Four Schemes	Percentage of total expenditure
2013-14	1014.16	218.28	122.20	44.00	0.00	384.48	37.91
2014-15	1374.03	304.80	164.86	45.30	27.11	542.07	39.45
2015-16	1037.56	172.88	114.12	30.99	23.82	341.81	32.94
2016-17	858.80	234.59	355.59	61.25	24.51	675.94	78.71
2017-18	1197.27	205.11	331.72	46.36	181.84	765.03	63.90
Total	5481.82	1135.66	1088.49	227.90	257.28	2709.33	49.42

Appendix 2.1.2

(Reference : Paragraph 2.1.6.3: Page: 20)

Micro Irrigation – Year wise details of Released grants, Expenditure and Surrendered grants

(₹ in crores)

Sr. No.	Financial year	Released grants by GoI			Total	Expenditure			Total	Surrendered Grants			Total	Unspent Balance
		General	SC	ST		General	SC	ST		General	SC	ST		
1	2013-14	116.74	30.82	16.24	163.80	116.74	4.59	3.30	124.63	0	26.23	12.94	39.17	0.00
2	2014-15	133.85	28.00	15.65	177.50	126.61	5.41	5.36	137.38	7.24	22.59	10.29	40.12	0.00
3	2015-16	68.93	10.61	8.84	88.38	65.19	2.26	2.96	70.41	3.74	8.35	5.88	17.97	0.00
4	2016-17	202.80	29.70	15.00	247.50	191.12	7.45	4.64	203.21	1.38	18.68	8.78	28.84	0.00
5	2017-18	282.40	17.35	15.25	315.00	166.02	2.00	1.81	169.83	0.00	0.00	0.00	0.00	145.17
	Total	804.72	116.48	70.98	992.18	665.68	21.71	18.07	705.46	12.36	75.85	37.89	126.10	160.62

Note- Unspent balance with state for 2016-17 - ₹ 15.45 crore is utilized for the proposals received in the year 2017-18

Appendix-2.1.3

(Reference : Paragraph 2.1.7.5: Page: 27)

Statement showing details of *lok wata*, against various TAOs, collected but not paid to the supplier and retained unauthorisedly resulting in temporary misappropriation under the jurisdiction of DSAO, Osmanabad

(1) Amount in respect of cropsap¹ Scheme				
Sr. No.	Name of TAO	Year	Amount (₹)	Action proposed in the MoM held on 10.01.2018
1	TAO Osmanabad	2012-13	17060	Officials to be identified and amount to be recovered from their salary.
2		2014-15	51775	
3		2016-17	21300	
4	TAO Lohara	2013-14	7752	to be reconciled with MAIDC records.
5	TAO Umarga		36310	to be reconciled with MAIDC records.
6		2014-15	1085	Shri N.S.Joshi - amount should be recovered from salary
7		2016-17	13809	Officials to be identified and amount to be recovered from them
8	SDAO Bhoom	2013-14	41812	to be reconciled with MAIDC records.
9		2014-15	32375	Officials to be identified and amount to be recovered from them
10	TAO Kalamb	2016-17	25754	Shri Bhujang Lokare - letter should be issued to remit the amount immediately
11	TAO Bhoom	2013-14	24000	Shri Amol Patil - amount should be recovered from salary and administrative action should be taken against the officials
12		2014-15	71000	
		Total	344032	
(2) Amount in respect of Micro nutrients/PPMs				
1	TAO Osmanabad	2014-15	254354	Recovery should be made from the salary of the concerned officials
2	TAO Tuljapur	2014-15	96600	Shri Magar - recovery should be made from salary, Shri Patil - recovery should be made from gratuity
3	TAO Paranda	2014-15	268000	Shri Deshpande, Shri Nirmale - notice should be issued and recovery should be made immediately
4	TAO Lohara		334000	Officials to be identified and amount to be recovered from them
5	TAO Bhoom		244000	Shri A.B.Patil, Shri P.J.Galande - Recovery should be made and administrative action should be taken against the officials
6	TAO Kalamb		276370	Recovery should be made from the concerned officials
7	TAO Washi		203617	TAO stated - Amount will be paid before 20 January 2018
8	TAO Lohara		10000	Notice should be issued to concerned officials
9	TAO Washi		34400	Officials to be identified and amount to be recovered from them
10	TAO Lohara		44500	Wrongly paid to MSSCL, the same will be recovered and paid to MAIDC
		Total	1765841	

¹ Crop Pest surveillance and Advisory Project

Appendix-2.1.3 (cont.)

(3) Amount in respect of Mechanization Scheme				
1	SDAO Osmanabad		4431	Recovery should be made from the concerned officials
2	TAO Kalamb		187000	Recovery should be made from the concerned officials and balance material should be returned to MAIDC
3	TAO Paranda		209000	Recovery should be made from the concerned officials
4	TAO Bhoom		193000	Recovery should be made from the concerned officials
5		2012-13	107000	Shri M.M.Gadgade - FIR should be registered against the official
6	TAO Umarga		132404	Reconciliation needs
7			116000	Recovery should be made from the concerned officials and paid to MAIDC
8	THN, Umarga		26628	SDAO, Osmanabad should pay the amount to MAIDC
9	TAO Tuljapur	2014-15	81000	Shri S.S.Ambad, Smt. A.D.Mali - Signature should be verified from Forensic lab and appropriate action should be taken against the officials
10	TAO Osmanabad		59000	Recovery should be made from the concerned officials
11	TAO Bhoom	2013-14	36000	FIR should be registered against the officials
		Total	1151463	
12+10+11 = 33	Grand Total (1+2+3)		3261336	

Appendix-2.1.4*(Reference : Paragraph 2.1.8.1: Page: 28)***Statement showing age of seed varieties distributed to farmers**

Years	Name of Districts	Crop for demonstration	Target in Ha.	Order No. & Date of supply order of DSAO	Seed variety supplied	Year to which seed variety pertained	Quantity of seed supplied (Qtl)	Subsidy rate of Seed/Kg.	Amount of subsidy (₹)
2013-14 (Kharif)	Jalgaon	Urad	1300	4191/30-05-13f	TAU- 1	1985 (28 years old)	206.70	76/kg.	1570920
2014-15 (Kharif)		Urad	600	4189/04-06-14	TAU – 1	1985 (29 years old)	62.02	76/kg.	471352
2013-14 (Rabi)		Harbhara	1900	6379/4-09-13 & 8285/25-10-13	Vijay	1994 (19 years old)	1140	46/kg	5244000
2013-14 (Kharif)	Osmanabad	Urad	1100	3971/13/ 06/06/13	TAU- 1	1985 (28 years old)	165	73/kg	1204500
2013-14 (Rabi)		Harbhara	4600	7301/13/ 26/10/2013	Vijay	1994 (19 years old)	113.60	44/kg	499840
			9500				1687.32		8990612

Appendix 2.1.5
(Reference : Paragraph 2.1.8.2: Page:32)
Statement showing details of implements pending for distribution to farmers

(₹ in lakh)

Sr. No.	Name of TAOs	Period of supply of implements	Total implements supplied	No. of implements with TAOs	Govt. subsidy involved	Recoverable farmers' contribution	Cost of implements	Schemes pertains to implements	Particulars	Reply of TAOs
1	Kuhi	2009-15	352	54	1.94	1.94	3.88	NFSM, NMOOP	Joint verification (JV) revealed that 37 Seed Drills were lying idle in open space for more than 7 years since 2009-2010 without any protection. Further it was observed that the Seed Drills were damaged due to rusting and found in deteriorated condition due to growth of vegetation and rain.	It was stated that there was no demand of implements by farmers and this fact communicated to DSAO / MAIDC
2	Chaligaon	2014-15	551	129	3.65	5.31	8.96	NFSM, RKVY	JV revealed that 102 implements out of 129 costing ₹ 4.5 lakh were missing.	It was replied that farmers did not demand the implements or implements were available at less rate at market, thus, implements could not be distributed. It was further replied that JV would be made by MAIDC and TAO. In respect of Minilab, TAO stated that there were no beneficiaries willing to receive it.

Appendix 2.1.5 (Cont.)

(₹ In lakh)

3	Jamner	2011-14	578	272	6.54	7.18	13.72	NFSM, RKVY	Scrutiny revealed that lokwata of ₹ 0.60 lakh collected from beneficiaries but not remitted to MAIDC. Moreover, 8 seed drills costing ₹ 4.32 lakh involving subsidy of ₹ 1.20 lakh transferred to Prabhu Agro Industries (December 2014) which was also pending.	TAO stated (March 2018) that the reply would be given within 3 months. However, this was awaited.
4	Tasgaon	2014-15	100	28	9.80	9.80	19.60	RKVY	JV revealed that out of 20 diesel engines 13 were damaged / returned by farmers and 7 were in packed condition. Moreover, lokwata of ₹ 1,960/- pending with TAO against pesticide (2014-15)	It was replied that all 20 diesel engines were not usable for HPP/well to lift water more than 10 meter as engines capacity is 3.1 HP. Thus, 13 farmers returned the engine for replacement but could not be replaced despite requested with MAIDC and 7 engines were in packed condition.
5	Kade-gaon	2011-16	65	6	0.60	0.70	1.30	NMOOP, NODP	Lokwata of ₹ 2.25 lakh pending in respect of fertilizer/pesticide/micro-nutrients (2012-15). Further, lokwata of ₹ 4.91 lakh (PPMs/implements) was recovered by an	It was replied that out of lokwata amounting to ₹ 70,204/- (implements) ₹ 36,855/- in respect of 3 brush cutter pending with an Agriculture Assistant, ₹ 4,296/- (Battery Pump) is being

Appendix 2.1.5 (Cont.)

(₹ In lakh)

									<p>Agriculture Assistant (2011-13) under “Bharaddhanya/Galitdhanya Vikas Karyakram” out of this an amount of ₹ 2.46 lakh was paid to MAIDC and balance amount of ₹ 2.45 lakh pending. In reply TAO stated that action is being taken to pay ₹ 2.45 lakh to MAIDC.</p>	<p>paid to MAIDC and balance ₹ 29,052/- pertains to BBF Planter which was not distributed. Moreover, ₹ 1,86,253/- (Fertilizer) pending with an Agriculture Assistant. Further it was replied that pesticide of ₹ 6,250/- was received delayed i.e. after 2014-15 thus, subsidy in this regard not received from higher authorities and Zinc Sulphate of ₹ 33,000/- was not received thus, it was reported pending for which correspondence is being made with MAIDC.</p>
6	Osmanabad	2012-15	-	229	2.52	2.53	5.05	NFSM, NMOOP	<p>JV revealed that out of 229 implements, only four implements (₹ 0.94 lakh) were found at godown and 225 implements worth ₹ 4.38 lakh were not found at godown. This indicated that lokwata of ₹ 2.19 lakh being 50 per cent was collected from beneficiar</p>	<p>TAO stated (July 2018) that 182 knapsack sprayer is pending at the level of relevant Agriculture Assistant due to non availability of godown at office of the TAO and remaining knapsack sprayer was distributed despite not demanded by farmers.</p>

Appendix 2.1.5 (Cont.)

(₹ In lakh)

									ies but not paid to MAIDC. Moreover, <i>lokwater</i> of ₹ 2.54 lakh of micro nutrients supplied during 2014-15 was also not paid to MAIDC and no records maintained at TAO level in this regard.	It was further replied that ₹ 2.54 lakh (micro nutrient) would be recovered from salary of official to be identified. TAO further stated that after receiving of subsidy grants from DSAO, it would be paid to MAIDC.
7	Kalamb	2014-15	1245	636	8.54	8.89	17.43	NFSM, NMOOP	Joint visit, it was found that out of 1,245 implements, 600 implements (Knapsack 16 out side (Satish and Padgilwar make)) amounting to ₹ 7,99,200/- and 36 implements (3 Tyne S/F drill (Ven Agro make)) amounting to ₹ 1,44,000/- was found at site, 609 numbers of agricultural implements worth ₹ 8.13 lakh (Subsidy + Non Subsidy) were not found at godown	It was stated that defective implements will be returned to MAIDC and collected <i>lokwater</i> will be remitted to MAIDC.
8	Gangapur	2013-14 to 2014-15	-	74	1.60	1.60	3.20	NFSM	-	It was stated that defective implements will be returned to MAIDC.
9	Shegaon	2013-14 to 2014-15	-	19	1.81	3.47	5.28	NFSM, NMOOP	-	
10	Chikhli	2012-13 & 2013-14	-	354	6.87	7.07	13.94	VIIDP, NFSM,DFM, Shendriya sheti	-	
11	Gadchiroli	2011-12 to 2016-17	-	140	3.29	3.29	6.58	NFSM,DFM	-	
12	Armori	2013-14 & 2014-15	-	86	2.25	2.25	4.50	NFSM	-	
Total				2027	49.41	54.03	103.44			

Appendix-2.1.6

(Reference : Paragraph 2.1.8.3: Page:33)

Statement showing delayed supply of the micronutrients

i) Kharif Season				
Name of TAO	Micronutrients		Delay in days	
	(in Kgs.)	(in liter)	Minimum	Maximum
Chikhli	17500	0	30	99
Aurangabad	11861	250	38	60
Armori	16500	0	14	63
Gadchiroli	39121	1962	11	87
Sangamner	74050	0	7	100
Karjat	43831	0	22	104
Total	202863	2212		

ii) Rabi Season				
Name of TAO	Micronutrients		Delay in days	
	(in Kgs.)	(in liter)	Minimum	Maximum
Shegaon	26970	0	63	144
Chikhli	61566	5733	8	79
Aurangabad	14141	853	17	130
Gangapur	40373	0	33	143
Gadchiroli	7702	0.5	3	93
Sangamner	19099	480	8	66
Karjat	95992	25	9	222
Katol	15415	1261	62	128
Chalisgaon	30000	0		227
Total	311258	8352.5		

Appendix 2.2.1

(Reference : Paragraph 2.2.6.1: Page:47)

Statement showing constitution of State Board

Chief Minister of the State	Chairperson
Minister of In-charge of Forest and Wildlife	Vice-Chairperson
Chief Wildlife Warden	Member-Secretary
Other Members	
Members of State Legislature	Three members
To represent non-governmental organizations	Three members (Nominated by the State Government)
Eminent conservationists, Ecologists; Environmentalists and representatives of the Scheduled Tribes (atleast two)	Ten persons (Nominated by the State Government)
Secretary to the State Government (In-charge of Forests and Wildlife)	
Officer in-charge of the State Forest Department	
Secretary to the State Government (Department of Tribal Welfare)	
Managing Director, State Tourism Development Corporation	
An officer of the State Police Department not below the rank of Inspector General	
A representative of the Armed Forces not below the rank of a Brigadier	Nominated by Central Government
The Director, Department of Animal Husbandry of the State	
The Director, Department of Fisheries of the State	
An officer Nominated by Director, Wild Life Preservation	
A representative of the Wild Life Institute of India, Dehradun	
A representative of the Botanical Survey of India	
A representative of the Zoological Survey of India	

Appendix 2.2.2*(Reference : Paragraph 2.2.8: Page:54)***Statement showing status of fund during 2012-13 and 2017-18****(₹ in crore)**

YEAR	GRANT			EXPENDITURE		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
2012-13	17.23	23.82	41.05	17.04	22.54	39.58
2013-14	21.01	42.40	63.41	21.09	44.84	65.93
2014-15	15.28	49.46	64.74	15.23	48.59	63.82
2015-16	45.85	55.75	101.60	45.8	52.87	98.67
2016-17	53.2	55.64	108.84	51.63	58.72	110.35
2017-18	152.59	53.78	206.37	150.79	48.21	199
TOTAL	305.16	280.85	586.01	301.58	275.77	577.35

Appendix 3.1.1

(Reference : Paragraph 3.1.3.1: Page: 72)

Cases of non or delay in execution of PPO works

Name of the circle Name of work	Area in hectare for CA	APO years in which proposed	Remarks
CCF (T) Thane			
Widening (Four Lane) Panvel to Indapur Section of NH 17	71	2014-15 and 2016-17	The PPO works were not executed and funds amounting to ₹ 101.79 lakh remained unutilized as the lands were stated to be unsuitable for compensatory afforestation. The division had forwarded (January 2017) a proposal for taking up of CA works on alternate lands to the APCCF cum Nodal Officer. The approval for the same was awaited.
Construction of Ghotwal Minor Irrigation Scheme in Village Tise.	15.73	2014-15 and 2016-17	<p>Funds of ₹ 19.35 lakh were sanctioned during 2014-15 for the PPO works, the work was not executed and the entire funds were surrendered, the reasons for which were not available on record. The PPO works was again proposed in APO during 2016-17 and sanctioned funds of ₹ 19.71 lakh which were again surrendered. The division had reported the unsuitability of the lands for CA to the APCCF cum Nodal Officer only in August 2017. The CCF (T), Thane in December 2017 forwarded the recommendation for change of area for CA. Thus, failure of the division to report unsuitability of lands in the year 2014-15 itself had resulted in demand and surrendering of funds during 2016-17.</p> <p>The CCF stated (February 2018) that the CA land was taken possession in December 2008. The stage II approval was accorded in January 2013. During the intervening period till Stage II approval, the vegetation increased in the said land and it became unsuitable.</p>
Laying of 400 KV/DC Padge (khanivali) Padge (Kondhle) Transmission Line	74.70	2015-16 and 2016-17	<p>The PPO works were proposed in the APO of 2015-16 and 2016-17 and an amount of ₹ 69.63 lakh and ₹ 100.31 lakh was sanctioned. However, no work was taken up and the entire amount of ₹ 169.94 lakh was surrendered. The said lands were found (December 2015) unsuitable by the division and they submitted a proposal for change of land which was forwarded by the CCF in January 2016, approval of which is awaited.</p> <p>The CCF confirmed (February 2018) that the funds were surrendered as the sites were found unsuitable. It was further stated that an investigation/enquiry has been initiated to ascertain and fix responsibility for issuing suitability certificate of unsuitable land.</p>

Appendix 3.1.1 (Cont.).

CCF (T) Nagpur			
Construction of Bawanthadi Irrigation Project	699.71	2012-13, 2013-14 and 2016-17	<p>Division had proposed CA on 699.71 ha of Zudpi² Jungle. However in inspection carried out by the RFOs in the year 2013, an area of 314.63 ha only was found suitable for CA and the PPO works were proposed and executed in the APO 2012-13. The PPO works on the balance land of 383.508 ha though unsuitable was proposed in the APO 2013-14 for which an amount of ₹ 48.18 lakh was allocated. The SFD again proposed the PPO works in the APO 2016-17 for which an amount of ₹ 50 lakh was allocated. The funds allocated in the year 2013-14 and 2016-17 were surrendered in respective years as the land was unsuitable. Thus, in spite of knowing that suitable land was not available the SFDs proposed the works in APO and allocate the funds which could not be utilized. Against the unsuitable land 383.508 ha, alternate zudpi jungle land was proposed only in August-September 2017 approval for which was awaited.</p> <p>The DCF, Gondia stated (May 2018) that the sites for CA were identified in the year 2005 and the Stage II approval was accorded in April 2010. The plantations were proposed in the year 2012-13. Thus, plantations were carried out after 7 years of selection of site. Due to high rainfall and natural regeneration, many sites have become shrubby areas with sparse tree species.</p>
400 KV Raipur Wardha Transmission Line	201.82	2014-15, 2016-17 and 2017-18	<p>The PPO works were proposed in the APO of 2014-15 on the entire land of 201.82 ha. However, execution of PPO works was done only in 20 ha during the year. The PPO works on the balance 181.82 ha was proposed in the APO of 2016-17 and again in the APO of 2017-18. It was observed that at the time of proposing the PPO works during the year 2016-17 itself, the division was aware (March 2015) that the said land of 181.82 ha was unsuitable. However, the proposal for alternate land of 182 ha in Sadak Arjuni and Deori in place of the already proposed degraded lands was forwarded by the SFD to Government of India in January 2018. Thus, the PPO works were proposed in the APOs in spite of land being unsuitable.</p> <p>The DCF, Gondia stated that the proposals for PPO were included in the APO of 2016-17 and 2017-18 with an anticipation that the change of site would be approved in time. However, the change of site was not approved so far (May 2018).</p>

(Source: Information collected from circle and division offices)

² Zudpi jungle are lands that were once forest but now have become degraded forest. These are mostly owned by Revenue Department but have the status of forest and hence attract the provisions of FC Act, 1980

Appendix 3.1.2
(Reference : Paragraph 3.1.3.1: Page:72)
Price escalation due to delay in taking up PPO works

Sr. No.	Circle	Project name	Project ID	Total CA Area (in ha)	Date of Final approval	Scheduled time for taking up PPO work as per the norms	Year in which PPO work actually taken up	Delayed by	Current cost of CA as per ready reckoner (₹)	CA amount recovered (₹)	Price escalation due to delay in taking up PPO works (₹)
1	Nagpur	Bawanthadi Irrigation Project	11455	699.71	20-04-2010	2012-13	Yet to be taken up	6 years	190420543	132338669	58081874
2		Manapur to Gondkhairi, Gumgaon to Salai Dhaba Road Project	2516	5.52	02-04-2008	2010-11	2013-14	3 years	1872008	409147	1462861
3		Tail Distributary of Sirsi Nala Project Taluka-Umrer	11671	1	19-05-2009	2011-12	2013-14	2 years	339132	74121	265011
4		Village Maharkund Approach Road to Veet Raag Homes Nagpur	11557	0.84	26-07-2010	2012-13	2013-14	1 year	284870	193103	91767
5		400KV D/C Raipur Wardha Transmission line	11920	201.82	07-09-2012	2014-15	Yet to be taken up	4 years	90277811	56137375	34140436
6		Diversion of 6.5589 ha (5.2584 ha and 1.3005 ha for safety zone) RF land of Comp No.189 - Pavri Kynite Mines Girola	11858	2	25-10-2012	2014-15	2015-16	1 year	820700	556324	264376

Appendix 3.1.2 (Cont.)

7	Realignment proposal for diversion of 9.124 ha forest land for construction of Karaj Kjeda LIS	2027 (22)	18.034	31-10-2012	2014-15	2015-16	1 year	7400252	5016374	2383878
8	Dindora Barrage and KT Weir in Wardha and Chandrapur District	1938	167.62	23-06-2014	2016-17	Yet to be taken up	2 years	83227185	53301402	29925783
9	Khaparkheda Thermal Power Station in order to create Ash for disposing Waste Ash & for laying of Ash Pipe Line	11168	61.4	11-03-2013	2015-16	2016-17	1 year	27715039	17079146	10635892
10	Railway siding Line at Village-Khapri	11892	2	22-03-2012	2014-15	2016-17	2 years	902770	556324	346446
11	Laying water Pipeline RoW-Uti Makardhokda	11947	1	13-08-2012	2014-15	2016-17	2 years	451385	278162	173223
12	Const. of Medicinal plants training center of FDCM Ltd Nagpur	11955	1	02-01-2013	2015-16	2016-17	1 Year	451385	278162	173223
13	400 KV Mouda-Wardha Transmission Line Bhadravati	12041	27.36	23-02-2012	2014-15	2016-17	2 years	12349893	6918632	5431261
14	Pindkepar Minor Irrigation Tank	2075	34.77	04-03-2014 &19-04-2016	2016-17	Yet to be taken up	1 year	34528209	26783663	7744546
15	Shekhapur PT	828	15.7	24-07-2002	2004-05	2017-18	13 years	7795411	1163700	6631711
16	Mokhabardi LIS	1929	19.9	09-09-2005	2007-08	2017-18	10 years	9880807	1475007	8405800
17	Dahegaon Gondi Project	886	7.31	01-09-1998	2000-01	2017-18	17 years	3629583	541824	3087759
18	Kar River Project	2374	36.18	29-10-1988	1990-91	2017-18	27 years	17964202	2681698	15282504

Appendix 3.1.2 (Cont.)

19		Yengal Khedal Gadchiroli minor irrigation Project	2452	27.19	01-07-2008	2010-11	2017-18	7 Years	13500460	2015350	11485110
20	Thane	Widening (Four Lanes) Panvel to Indapur Section of NH 17 from Km 20/100 to 84/100	12157	50	23-08-2013	2015-16	Yet to be taken up	3 years	24826150	16956650	7869500
21		Widening (Four Lanes) Panvel to Indapur Section of NH 17 from Km 0/00 to 21/100	12186	21	23-08-2013	2015-16	Yet to be taken up	3 years	10426983	7127793	3299190
22		Construction of Ghotwal Minor Irrigation Scheme	12011	15.73	21-06-2013	2015-16	Yet to be taken up	3 years	7810307	4415633	3394674
23		Gas Transportation and Infrastructure company	0	44.07	09-07-2007	2009-10	Yet to be taken up	9 years	21881769	3712589	18169180
24		400 KV/DC Padghe (Khanivali) Padghe (Kondhle) transmission line	12287	74.7	19-06-2014	2016-17	Yet to be taken up	2 years	37090268	27866461	10223807
25		Bhatsa Project		681.589	02-05-2014	2016-17	Yet to be taken up	2 years	338424615	231147959	107276656
26		Bhimashankar Ghat Road from Kothimbe	1148 (37)	10.682	26-09-2013	2015-16	2016-17	1 year	4821694.57	3622608.024	1199087
27	Dhule	M/s Suzlon Energy Ltd., Pune	11615	90.99	06-04-2010	2012-13	14.83 ha PPO works taken up in 2013-14	6 years	30857621	6744270	24113351
28		Erection of 33 KV electric line		1.98	Nov-12	2014-15	2016-17	2 years	893742	550761	342981

Appendix 3.1.3

(Reference : Paragraph 3.1.3.3: Page:74)

Delay in submission of APOs

APO Year	Approval by Executive Committee	Approval by Steering Committee	Submission to Ad-hoc CAMPA	Delay in submission of APOs to Steering Committee (in months)
2010-11	03.04.2010	20.07.2010	09.11.2010	3
2011-12	17.09.2011	24.10.2011	03.10.2011	9
2012-13	24.02.2012	26.04.2012	16.05.2012	2
2013-14	16.02.2013	12.03.2013	15.03.2013	2
2014-15	06.01.2014	15.02.2014	21.02.2014	1
2015-16	16.03.2015	15.04.2015	22.04.2015	3
2016-17	08.02.2016	29.03.2016		3
2017-18	10.2.2017	27.03.2017		3

(Source : Information collected from APCCF (CAMPA))

Appendix 3.2.1

(Reference: Paragraph 3.2.4; Page 86)

Small Hydro Projects selected for Thematic Audit

Sr. No.	Name of SHP	Category (Government identified/self identified)	Whether Captive use or independent	Installed capacity (in MW)	Name of Developer	Date of Letter of Permission	Date of Letter of Allotment	Date of signing of HPDA	Date of issue of Letter of Authorization	Date of commission
1	2	3	4	5	6	7	8	9	10	11
Completed										
1	Yedgaon HEP, Taluka Junnar, Dist. Pune	Self Identified	Captive use	2.50	M/s Laxmi Organic Industries Ltd.	19.01.2004	28.06.2006	28.05.2009	20.02.2013	17.12.2017
2	Radhanagari HEP, Taluka Radhanagari, Dist. Kolhapur	Government Identified	Independent	8.00	M/s R.M. Mohite Textile Ltd.	25.04.2004	08.07.2004	17.09.04	Not available	03.08.2011
3	Ghataprabha HEP, Taluka Chandgad, Dist. Kolhapur	Self Identified	Independent	8.00	M/s Mohite & Mohite (Eng. & Contractors) Pvt. Ltd.	05.06.2008	09.01.2009	21.05.2010	Not available	14.07.2011
4	Darna HEP, Taluka Igatpuri, Dist. Nashik	Government Identified	Independent	3.00	M/s DLI Power (India) Pvt. Ltd., Mumbai	03.01.2007	03.09.2007	03.04.2008	12.02.2008	01.09.2011
5	Mukane HEP, Taluka Igatpuri, Dist. Nashik	Government Identified	Independent	1.50	M/s Shreehari Associates Pvt. Ltd., Aurangabad	04.07.2008	21.08.2009	01.11.2010	19.10.2011	25.12.2016
6	Nilwande Low Level HEP, Taluka Akole, Dist. Ahmednagar	Self Identified	Independent	8.00	M/s New Asian Construction Co., Mumbai	12.01.2009	27.04.2010	11.06.2010	19.01.2011	14.11.2015

Ongoing										
1	Waki HEP, Taluka Igatpuri, Dist. Nashik	Government Identified	Independent	1.00	M/s Shreehari Associates (P) Ltd., Aurangabad	04.07.2008	20.08.2009	11.10.2010	19.10.2011	Ongoing
2	Mula (RBC & LBC) HEP, Taluka Rahuri, Dist. Ahmednagar	Self Identified	Independent	5.75	M/s Kamdar Infrastructure Private Limited, Pune	27.06.2008	12.10.2010	21.10.2011	21.01.2013	Ongoing. The Mula RBC is commissioned (March 2018) and the work of LBC not commenced.
3	Gosikhurd RBC HEP, Taluka Pauni, Dist. Nagpur	Government Identified	Independent	1.5	M/s Aarti Hydro Vidyut Pvt. Ltd., Sangli	26.02.2014	16.09.2015	08.08.2016	03.04.2017	Ongoing

Appendix 3.2.2

(Reference: Paragraph 3.2.7.1; Page 88)

Delays in months in respect of selected commissioned Projects

Sr. No.	Name of SHP and Installed capacity (in MW)	Category (Government identified/ self identified)	Name of Developer	Date of Letter of Permission	Date of Letter of Allotment	Date of signing of HPDA	Date of issue of Letter of Authorisation	Stipulated date of completion	Date of commission	Delay in months
1	2	3	4	5	6	7	8	9	10	11
Completed										
1	Yedgaon HEP, Taluka Junnar, Dist. Pune (4.00)	Self Identified	M/s Laxmi Organic Industries Ltd.	19.01.2004	28.06.2006	28.05.2009	20.02.2013	20.02.2015	17.12.2017	34
2	Radhanagari HEP, Taluka Radhanagari, Dist. Kolhapur (10.00)	Government Identified	M/s R.M. Mohite Textile Ltd.	25.04.2004	08.07.2004	17.09.04	Not available	17.2.2007	03.08.2011	63
3	Ghataprabha HEP, Taluka Chandgad, Dist. Kolhapur (8.00)	Self Identified	M/s Mohite&Mohite (Eng. & Contractors) Pvt. Ltd.	05.06.2008	09.01.2009	21.05.2010	Not available	21.11.2012	14.07.2011	No delay
4	Darna HEP, Taluka Igatpuri, Dist. Nashik (4.90)	Government Identified	M/s DLI Power (India) Pvt. Ltd., Mumbai	03.01.2007	03.09.2007	03.04.2008	12.02.2008	12.2.2010	01.09.2011	17
5	Mukane HEP, Taluka Igatpuri, Dist. Nashik (1.45)	Government Identified	M/s Shreehari Associates Pvt. Ltd., Aurangabad	04.07.2008	21.08.2009	01.11.2010	19.10.2011	19.10.2013	25.12.2016	38
6	Nilwande Low Level HEP, tal. Akole, Dist. Ahmednagar (7.00)	Self Identified	M/s New Asian Construction Co., Mumbai	12.01.2009	27.04.2010	11.06.2010	19.01.2011	19.1.2013	14.11.2015	32

Note: - In projects where the letter of authorization was not available, the stipulated date of completion is considered as 30 months from the date of HPDA.

Appendix 3.2.3
(Reference: Paragraph 3.2.7.2; Page 89)
Status of Three ongoing projects

Sr. No.	Name of Project	Category (Government identified / Self Identified)	Installed capacity in MW	Name of Promoter	Date of Letter of Permission	Date of submission of TEFR	Date of Letter of Allotment	Date of signing of HPDA	Date of Letter of Authorisation	Reasons for delay	Delay in months
1	Waki HEP, Taluka Igatpuri, Dist. Nashik	Government Identified	1.15	M/s Shreehari Associates Pvt. Ltd., Aurangabad	04.07.2008	11.10.2008	20.08.2009	11.10.2010	19.10.2011	Dam work incomplete hence SHP work stopped by developer since July 2014. Gate erection work is in progress.	53
2	Gosikhurd (RBC) HEP, Taluka Pauni Dist. Bhandara	Government Identified	2.50	M/s Aarti Hydro Power Pvt. Ltd., Sangli	26.02.2014	15.05.2014	16.09.2015	08.08.2016	03.04.2017	Work of excavation in progress	--
3	Mula (RBC & LBC) HEP, Taluka Rahuri, Dist. Ahmednagar	Self Identified	RBC-4.00 MW LBC-0.9 MW	M/s Kamdar Infrastructure Pvt. Ltd., Pune	27.06.2008	18.06.2008	12.10.2010	21.10.2011	21.01.2013	Mula RBC only completed and LBC not yet started due to non receipt of financial closure.	39

Appendix 3.2.4

(Reference: Paragraph 3.2.8; Page 90)

Short generation of power in selected projects

Sr. No.	Name of the project	Date of commissioning	Projected annual generation (in mus)	Period of generation	Total projected generation (in mus) during the period of generation	Actual generation upto March 2018 since commissioning (in mus)	Shortfall (in mus and Percentage)
1	Ghataprabha HEP (8 MW), Tal-Chandgad, Dist. Kolhapur	14.07.2011	12.67 (12.67/12=1.05 pm)	July 2011 to March 2018	67 x 1.05 = 70.35	68.00	2.35 (3)
2	Radhanagari HEP (10 MW), Tal-Radhanagari, Dist. Kolhapur	03.08.2011	26.82 (26.82/12=2.23 pm)	August 2011 to March 2018	85 x 2.23 = 189.55	144.37	45.18 (19)
3	Yedgaon HEP (3 MW), Tal-Junnar, Dist. Pune	17.12.2017	12.00 (12.00/12=1.00 pm)	December 2017 to March 2018	4 x 1.00 = 4.00	0.42	3.58 (89)
4	Darna HEP (4 MW), Tal-Igatpuri, Dist. Nashik	01.09.2011	20.99 (20.99/12=1.75 pm)	September 2011 to March 2018	87 x 1.75 = 152.25	82.48	69.77 (46)
5	Mukane HEP (1.45 MW), Tal-Igatpuri, Dist. Nashik	25.12.2016	3.26 (3.26/12=0.27 pm)	December 2016 to March 2018	28 x 0.27 = 7.56	No generation	7.56 (100%)
6	Nilwande low level HEP (7 MW), Tal - Akole, Dist. Ahmednagar	14.11.2015	16.65 (16.65/12=1.38 pm)	November 2015 to March 2018	28 x 1.38 = 38.64	38.64 (Excess generation of 12.71 mus)	Achieved
				Total	462.35	333.91	128.44 (28)

Appendix 3.3.1*(Reference: Paragraph 3.3.1; Page 92)***Projects selected for detailed audit**

Sr. No.	Name of IDC	Name of Project	Dam type
1.	GMIDC	Lower Dudhna	Major
2.	GMIDC	Nandur Madhmeshwar Phase II	Major
3.	KIDC	Aruna	Medium
4.	KIDC	Arjuna	Medium
5.	KIDC	Tillari	Major
6.	MKVDC	Krishna Koyna Lift Irrigation Scheme	Major
7.	MKVDC	Wang	Medium
8.	MKVDC	Tarali	Major
9.	MKVDC	Warna	Major
10.	MKVDC	DhomBalakwadi	Major
11.	MKVDC	Sangola Branch Canal	Major
12.	TIDC	Waghur	Major
13.	TIDC	Gul	Medium
14.	TIDC	Lower Panzara	Medium
15.	VIDC	Lower Pedhi	Major
16.	VIDC	Bawanthati	Major
17.	VIDC	Khadakpurna	Major
18.	VIDC	Lower Wardha	Major

Appendix 3.3.2

(Reference: Paragraph 3.3.3.1; Page 95)

Time and cost overrun in respect of test checked projects included under AIBP

(₹ in crore)

Sr. No.	Name of IDC	Name of Project	Date of original AA	Amount	Date of Latest R.A.A.	Amount	expenditure upto March 2018	Cost overrun since inception	Time overrun since inception (in years)	Year of inclusion in AIBP	Stipulated year of completion under AIBP	Status as of March 2017	Delay in completion (under AIBP) (in years)	Major reasons for delay	Balance cost at the time of inclusion under AIBP	Expenditure incurred after inclusion under AIBP upto March 2018	Cost over run
1	GMIDC	Lower Dudhna	30.05.1979	28.42	13.10.2016	2341.67	2043.59	2015.17	39	2005-06	2009	On going	9	Opposition of PAPs, land constraints	517.41	1813.59	1296.18
2	GMIDC	Nandur Madhmeshwar Phase II	19.07.1979	48.70	13.10.2016	2210.59	727.84	679.14	39	2008-09	2013	On going	5	Land acquisition, change in scope	195.41	677.26	481.85
Total GMIDC ongoing																	1778.03
3	KIDC	Tillari	15.03.1979	45.20	21.06.2017	2496.78	1181.55	1136.35	39	2005-06	2010	On going	8	Fund problem, land constraints	245.48	442.18	196.70
4	KIDC	Arjuna	5.11.1995	61.88	23.06.2017	743.08	548.16	486.28	23	2007-08	2010	On going	8	Opposition of PAP due to non-rehabilitation of PAP, land acquisition	151.16	443.94	292.78
5	KIDC	Aruna	05.12.1995	53.94	25.05.2012	669.79	777.63	723.69	23	2009-10	2012	On going	6	Opposition of PAP due to non-rehabilitation of PAP, land acquisition	210.45	739.97	529.52
Total KIDC ongoing																	1019.00

6	MKVDC	Warna	03.01.1967	31.64	13.10.2016	1174.98	652.07	620.43	51	2005-06	2010	Completed	7	Delay in approval of RAA	375.00	350.09	0
Total MKVDC complete																	0
7	MKVDC	Tarali	16.02.1996	194.32	06.09.2010	1057.63	1095.62	901.30	23	2007-08	2012	Ongoing	7	Insufficient fund, land constrains, change in scope	363.27	548.54	185.27
8	MKVDC	Krishna Koyna Lift Irrigation Scheme	26.04.1984	82.43	02.08.2017	4959.91	2497.16	2414.73	34	2009-10	2014	Ongoing	4	Insufficient resources	973.62	904.21	0
9	MKVDC	Dhom Balkawadi	11.06.1996	261.72	30.05.2017	1402.51	935.25	673.53	22	2007-08	2012	Ongoing	6	Land constraints	319.07	583.26	264.19
10	MKVDC	Sangola Branch Canal	14.09.1977	0.46	22.06.2017	937.92	324.21	323.75	43	2007-08	2012	Ongoing	6	Delay in approval of RAA	211.36	249.14	37.78
11	MKVDC	Wang	31.10.1995	81.47	23.03.2009	235.91	273.16	191.69	23	2008-09	2011	Ongoing	5	Opposition of PAP due to non-rehabilitation of PAP ,land acquisition	74.66	144.42	69.76
Total MKVDC ongoing																	557.00
12	TIDC	Waghur	06.01.1976	12.28	16.03.2011	1183.55	1010.81	998.53	42	1996-97	2001	Ongoing	18	Land constraints, change in scope	161.05	982.54	821.49
13	TIDC	Lower Panzara	30.01.1984	20.67	12.09.2016	556.29	495.91	475.24	34	2009-10	2012	Ongoing	6	Land Acquisition, Opposition of PAPs, paucity of funds	132.44	342.08	209.64
Total TIDC ongoing																	1031.13

14	TIDC	Gul	15.09.1983	5.92	15.12.2008	96.61	104.03	98.11	26	2005-06	2008	Completed	7	Incomplete distribution system	63.25	72.46	9.21
Total TIDC completed																	9.21
15	VIDC	Lower Pedhi	12.08.2004	161.14	14.08.2009	594.75	801.42	640.28	14	2008-09	2011	Ongoing	7	Land Acquisition, Rehabilitation Problem	283.10	798.02	514.92
16	VIDC	Bawanthadi	12.09.1975	11.66	28.08.2009	561.26	902.16	890.50	43	2004-05	2008	Ongoing	10	Land Acquisition, incomplete railway crossings	121.39	744.79	623.40
17	VIDC	Khadakpurna	16.08.1989	79.55	24.06.2009	1095.92	1216.32	1136.77	30	2006-07	2010	Ongoing	8	Land acquisition Problem	497.32	997.83	500.51
18	VIDC	Lower Wardha	09.01.1981	48.09	18.08.2009	2356.58	2391.37	2343.28	37	2006-07	2009	Ongoing	9	Insufficient fund, land acquisition	542.25	1995.55	1453.30
Total VIDC ongoing																	3092.13

Appendix 3.8.1*(Reference: Paragraph 3.8; Page 109)***Excess payment of ₹ 6.15 crore to contractor due to non-deduction workshop charges initially loaded in the approved Rate Analysis**

Portions of the Gate work	Quantity executed till 53 rd RA bill (in MT)	Workshop charges included in Rate Analysis approved by the CE (Mechanical), WRD, Nashik (₹/MT)	Amount (in ₹)
<i>a</i>	<i>b</i>	<i>c</i>	<i>d (b * c)</i>
V.L. Gate leaf	2854.332	7582	21641545
V.L. Gate Embedment	916.66	4908	4498967
Stop log gate leaf	396.229	3950	1565105
Stop log Gate Embedment	553.558	4908	2716863
Hoist Bridge	2220.616	3086	6852821
Rope Drum Hoist	1230.22	14621	17987047
Goliath crane	146.532	11821	1732155
Total			56994503
Tender <i>per cent</i> 7.95% above			4531063
Total excess payment made to contractor			61525566

Appendix 3.8.2*(Reference: Paragraph 3.8; Page 109)***Excess payment of ₹ 5.56 crore to contractor due to incorrect loading of Crane Charges**

Portions of the Gate work	Quantity executed till 53rd RA bill (in MT)	Crane charges (₹/MT)	Amount (in ₹)
<i>a</i>	<i>b</i>	<i>c</i>	<i>d (b * c)</i>
V.L. Gate leaf	2854.332	6192	17674024
V.L. Gate Embedment	916.66	3096	5675959
Stop log gate leaf	396.229	6192	2453450
Stop log Gate Embedment	553.558	3096	3427631
Hoist Bridge	2220.616	6192	13750054
Rope Drum Hoist	1230.22	6192	7617522
Goliath crane	146.532	6192	907326
Total			51505966
Tender <i>per cent</i> 7.95% above			4094724
Total excess payment made to contractor			55600691

Appendix 3.8.3
(Reference: Paragraph 3.8; Page 109)
Additional payment of ₹ 4.42 crore to contractor due to excess loading of Overhead charges

Portions of the Gate work	Quantity executed till 53 rd RA bill (In MT)	Overhead charges allowed to be considered by C.E (Mech) (in ₹/MT)	Overhead charges actually loaded by the Division (in ₹/MT)	Excess loading of overhead charges (in ₹/MT)	Excess payment due to excess loading of overhead charges (in ₹)
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e (d-c)</i>	<i>f (b * e)</i>
V.L. Gate leaf	2854.332	7468	12445	4977	14206010
V.L. Gate Embedment	916.66	7755	12840	5085	4661216
Stop log gate leaf	396.229	7552	12315	4763	1887239
Stop log Gate Embedment	553.558	7774	12860	5086	2815396
Hoist Bridge	2220.616	6021	10330	4309	9568634
Rope Drum Hoist	1230.22	12525	18229	5704	7017175
Goliath crane	146.532	11554	17111	5557	814278
Total					40969949
Tender <i>per cent</i> 7.95% above					3257111
Total excess payment made to contractor					44227060

Glossary

Acronyms and Abbreviations in respect of Paragraph Number 2.1	
Acronyms	Extended form
AA	Agriculture Assistants
AAP	Annual Action Plan
ACS	Additional Chief Secretary
BBF	Broad Bed Furrow
BDS	Budget Distribution System
CAO	Circle Agriculture Officers
CCE	Crop cutting experiments
CIPET	Central Institute of Plastics Engineering & Technology
CoA	Commissioner of Agriculture
CS	Certification stage
CSS	Centrally Sponsored Schemes
DAC	Department of Agriculture and Cooperation
DJDA	Divisional Joint Director of Agriculture
DPC	District Planning Committee
DSAO	District Superintending Agriculture Officer
FDIC	Frontline demonstration inter cropping
FMG	Final modified grant
FS	Foundation Stage
HDPS	High density planting system
I&QC	Inputs and quality control
ISTA	International Seed Testing Association
MI	Micro Irrigation
NFSM	National Food Security Mission
NMMI	National Mission on Micro Irrigation
NMOOP	National Mission on oilseeds and oil palm
PMKSY	Pradhan Mantri Krishi Sinchan Yojna
PPM	Plant Protection Material
RKVY	Rashtriya Krishi Vikas Yojana
SAU	State Agriculture Universities
SCA	Seed Certification Agencies
SDAO	Sub-divisional Agriculture Officers
SLSC	State Level Standing Committee
SMAM	Sub-Mission on Agricultural Mechanisation
SMSP	Sub-Mission for Seed and Planting material
STL	Seed Testing Laboratories
TAO	Taluka Agriculture Officer
VRR	varietal replacement rate

Acronyms and Abbreviations in respect of Paragraph Number 2.2	
APO	Annual Plan of Operation
BTR	Bor Tiger Reserve
CCF	Chief Conservator of Forest
CH	Compartment History
CR	Conservation Reserve
CTH	Critical tiger habitat
CWLW	Chief Wildlife Warden
ESZ	Eco-Sensitive Zone
FDCM	Forest Development Corporation of Maharashtra Limited
FRA	Forest Rights Act
LAC	Local Advisory Committee
MoEF	Ministry of Environment and Forest
MTR	Melghat Tiger Reserve
NNTR	Nagzira-Navegaon Tiger Reserve
NP	National Park
NPV	Net Present Value
NTCA	National Tiger Conservation Authority
NWAP	National Wildlife Action Plan
PA	Protected Area
PC	Protection Camp
PCCF	Principal Chief Conservator of Forests
PTR	Pench Tiger Reserve
RFO	Range Forest Officer
RO	Range Officer
ROFR	Recognition of Forest Rights
STPF	Special Tiger Protection Force
STR	Sahyadri Tiger Reserve
TATR	Tadoba Andhari Tiger Reserve
TCP	Tiger Conservation Plan
WLS	Wildlife Sanctuary
Acronyms and Abbreviations in respect of Paragraph Number 3.1	
APCCF	Additional Principal Chief Conservator of Forest
APO	Annual Plan of operation
CA	Compensatory Afforestation
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CCF	Chief Conservators of Forests
CWLW	Chief Wildlife Warden
FC	Forest Conservation
FYO	First Year Operation
HoEF	Head of Forest Force
NFL	Non-forest land

NHAI	National Highway Authority of India
NPV	Net Present Value
OTSP	Outside Tribal Sub-Plan
PF	Protected Forest
PPO	Pre-Plantation Operation
PTR	Pench Tiger Reserve
RF	Reserved Forest
SFD	State Forest Department
SYO	Second Year Operation
TYO	Tenth Year Operation
5YO	Fifth Year Operation

Acronyms and Abbreviations in respect of Paragraph Number 3.2

BOT	Build, operate and transfer
CAD	Command Area Development
CPP	Captive power producers
HDPA	Hydro-power development agreement
IPP	Independent power producers
KDC	Koyna Design Circle
LBC	Left Bank Canal
LoP	Letter of Permission
RBC	Right Bank Canal
SCADA	Supervisory control and data acquisition
SHP	Small Hydro Project
TEFR	Techno-Economic Feasibility Report

Acronyms and Abbreviations in respect of Paragraph Number 3.3

AIBP	Accelerated Irrigation Benefits Programme
CLA	Central Loan Assistance
GMIDC	Godavari Marathwada Irrigation Development Corporation
IDC	Irrigation Development Corporation
KIDC	Konkan Irrigation Development Corporation
MKVDC	Maharashtra Krishna Valley Development Corporation
MPW	Maharashtra Public Works
RAA	Revised Administrative Approval
SLTAC	State Level Technical Advisory Committee
TIDC	Tapi Irrigation Development Corporation
VIDC	Vidarbha Irrigation Development Corporation