

## 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 area<sup>1</sup> (197.70 lakh ha) and third in terms of operational holdings<sup>2</sup> (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 implements<sup>3</sup>. 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

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

<sup>2</sup> 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

<sup>3</sup> Implements like tractor, power tiller, rotavator, thresher, turbo seeder *etc.*

Management and soil conservation. There are eight<sup>4</sup> 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)<sup>5</sup>. 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 schemes<sup>6</sup>, implemented during the period from 2013-14 to 2017-18. The average expenditure on these schemes formed around 50 *per cent* of total expenditure

<sup>4</sup> Amravati, Aurangabad, Kolhapur, Latur, Nagpur, Nashik, Pune and Thane

<sup>5</sup> 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

<sup>6</sup> 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 eight<sup>7</sup> selected DSAOs (one from each Division was selected to have representation of sample from each division) and 16<sup>8</sup> 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 (SLSC<sup>9</sup>) 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

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<sup>7</sup> Ahmednagar, Aurangabad, Buldhana, Jalgaon, Nagpur, Osmanabad, Sangli and Thane

<sup>8</sup> Aurangabad, Chalisgaon, Chikhali, Gangapur, Jamner, Kadegaon, Kalamb, Karjat, Katol, Kuhi, Murbad, Osmanabad, Sangamner, Shegaon, Tasgaon and Ulhasnagar

<sup>9</sup> 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 estimated<sup>10</sup> 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 seed<sup>11</sup> → Foundation seed<sup>12</sup> → Certified seed<sup>13</sup> → 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

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

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

<sup>12</sup> Foundation seed is the progeny of breeder seed

<sup>13</sup> 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 truthful<sup>14</sup> 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 rate<sup>15</sup> (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/agencies<sup>16</sup> 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

<sup>14</sup> 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

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

<sup>16</sup> 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-II<sup>17</sup> and certification stage (CS)-I to CS-II<sup>18</sup> 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.**

<sup>17</sup> FS-II seed is produced from FS-I seed

<sup>18</sup> 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 <sup>19</sup> 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
<b>Total</b>	<b>1191506</b>	<b>1611200</b>	<b>419694</b>	<b>159052</b>

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 (blotches<sup>20</sup>) 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 <sup>21</sup> in seed
	FS	Poor Germination Complaint
Soyabean JS-93-05 (2014-15)	BR	More than 5-6 per cent off type <sup>22</sup> 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

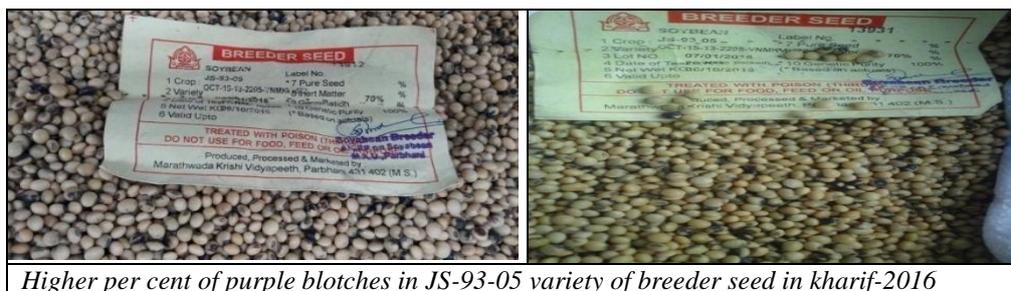
Source: Information furnished by the Mahabeej, Akola

<sup>19</sup> Corrective Seed production – The shortfall for soyabean seed met from other states

<sup>20</sup> Blotches in seeds indicates inferior quality of seed with germination problem

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

<sup>22</sup> 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 rate<sup>23</sup> (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.

<sup>23</sup> 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 schemes<sup>24</sup> were being implemented and monitored via online web portal- '[mahaethibak.gov.in](http://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 four<sup>25</sup> companies who manufactured and supplied drip/sprinkler system under the MI schemes failed during the period 2009-15 in quality tests<sup>26</sup> (reported during the years 2013-16) on more than two/three

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<sup>24</sup> 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

<sup>25</sup> 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

<sup>26</sup> 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 Institute<sup>27</sup> 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.

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<sup>27</sup> 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 seven<sup>28</sup> models of tractors sold by five<sup>29</sup> 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 (BBF<sup>30</sup>) 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.

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

<sup>29</sup> EICHER, JOHND, MAHINDRA SWARAJ, SONALIKA and TAFE

<sup>30</sup> 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 fingerprint<sup>31</sup> 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 three<sup>32</sup> 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**.

<sup>31</sup> 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

<sup>32</sup> 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
<b>Total</b>	<b>7024.41</b>	<b>5481.82</b>	<b>1542.59</b>	<b>21.96</b>

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 seven<sup>33</sup> 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 four<sup>34</sup> 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 proportion<sup>35</sup> 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**.

<sup>33</sup> Buldhana, Gadchiroli, Jalgon, Nagpur, Osmanabad, Sangli and Thane

<sup>34</sup> NFSM, NMOOP, NMMI/PMKSY and SMAM

<sup>35</sup> 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 three<sup>36</sup> 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 six<sup>37</sup> 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 ₹ 269.98<sup>38</sup> crore pertaining to various CSSs, available in the savings bank accounts with the 34 DSAOs since 2012-13 and

<sup>36</sup> Ahmednagar, Buldhana and Jalgaon

<sup>37</sup> Aurangabd, Gadchiroli, Nagpur, Osmanabad, Sangli and Thane

<sup>38</sup> ₹ 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 seven<sup>39</sup> test checked DSAOs, beneficiary contribution amounting to ₹ 6.11 crore<sup>40</sup> 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 *lokвата*<sup>41</sup>. 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 records<sup>42</sup> 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.

<sup>39</sup> Ahmednagar, Aurangabad, Buldhana, Jalgaon, Osmanabad, Sangli and Thane

<sup>40</sup> The amount was obtained from suppliers viz. MAIDC and Mahabeej

<sup>41</sup> Farmers' share of contribution towards the cost of agricultural input is the *lokвата*

<sup>42</sup> 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 two<sup>43</sup> 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
<b>Total</b>						<b>1544900</b>

*Source: Information furnished by the DSAO, Jalgaon*

<sup>43</sup> 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 five<sup>44</sup> 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

<sup>44</sup> 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 DSAOs<sup>45</sup> 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.

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<sup>45</sup> 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 six<sup>46</sup> 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, 7/12<sup>47</sup> 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:

<sup>46</sup> Aurangabad, Buldhana, Gadchiroli, Nagpur, Osmanabad and Sangli

<sup>47</sup> 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 five<sup>48</sup> 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 five<sup>49</sup> 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 12<sup>50</sup>TAOs, 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.

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<sup>48</sup> Buldhana, Jalgaon, Nagpur, Osmanabad and Sangli

<sup>49</sup> Ahmednagar (13), Buldhana (131), Jalgaon (11), Osmanabad (47) and Sangli (86)

<sup>50</sup> 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 three<sup>51</sup> 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 ten<sup>52</sup> 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.

<sup>51</sup> Chalisgaon, Kalamb and Osmanabad

<sup>52</sup> 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 nine<sup>53</sup> test checked DSAOs) out of 9,38,401 during the years 2013-18, were not ascertainable from the web portal.

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<sup>53</sup> 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 four<sup>54</sup> 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 eighteen<sup>55</sup> 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, four<sup>56</sup> TAOs accepted (March 2018, July 2018, December 2017 and July 2018) the facts and stated that records would be updated; three<sup>57</sup> 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,

<sup>54</sup> Chalisgaon, Jamner, Kadegaon and Tasgaon

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

<sup>56</sup> Chalisgaon, Kalamb, Katol and Osmanabad

<sup>57</sup> 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		
<b>Kharif Season</b>				
<b>2013-14</b>				
April	500	270	310	214
May	500	638	310	733
June	500	2537	310	1494
<b>2014-15</b>				
April	500	57	310	346
May	500	923	310	1234
June	500	2069	310	652
<b>2015-16</b>				
April	500	95	310	337
May	500	449	310	634
June	500	2500	310	1307
<b>2016-17</b>				
April	500	74	310	74
May	500	626	310	676
June	500	2543	310	1346
<b>2017-18</b>				
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 three<sup>58</sup> 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 three<sup>59</sup> DSAOs, there was no shortfall. Three<sup>60</sup> DSAOs did not furnish the information.

Further, as regarding inter-district inspection, out of nine test checked DSAOs, two<sup>61</sup> DSAOs inspected the installed MI sets and three<sup>62</sup> DSAOs did not adhere to such instructions. Information from remaining four<sup>63</sup> 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 website<sup>64</sup> 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

<sup>58</sup> Buldhana, Jalgaon and Osmanabad

<sup>59</sup> Ahmednagar, Nagpur and Sangli

<sup>60</sup> Aurangabad, Gadchiroli and Thane

<sup>61</sup> Nagpur and Sangli

<sup>62</sup> Gadchiroli, Jalgaon and Osmanabad

<sup>63</sup> Ahmednagar, Aurangabad, Buldhana and Thane

<sup>64</sup> 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 (NTCA)<sup>65</sup> is considered for declaration as a TR.

In the State of Maharashtra, there are six<sup>66</sup> 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 biotic<sup>67</sup> 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

<sup>65</sup> 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

<sup>66</sup> 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)

<sup>67</sup> 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 authorities<sup>68</sup> and six forest divisions<sup>69</sup> 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

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

<sup>69</sup> 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 orders<sup>70</sup>. 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 km<sup>71</sup> 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)<sup>72</sup> 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

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<sup>70</sup> 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

<sup>71</sup> 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)

<sup>72</sup> 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 (7<sup>th</sup> June 2012, 24<sup>th</sup> January 2013, 20<sup>th</sup> February 2014 and 31<sup>st</sup> January 2018) and no meeting was held during 2017. During 2015 and 2016 meetings were held twice<sup>73</sup> 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

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<sup>73</sup> 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 constituted<sup>74</sup> 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 SWOT<sup>75</sup> 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

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

<sup>75</sup> 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 (CH<sup>76</sup>) 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 (ESZ<sup>77</sup>) 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 three<sup>78</sup>TRs, 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 Areas<sup>79</sup> 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

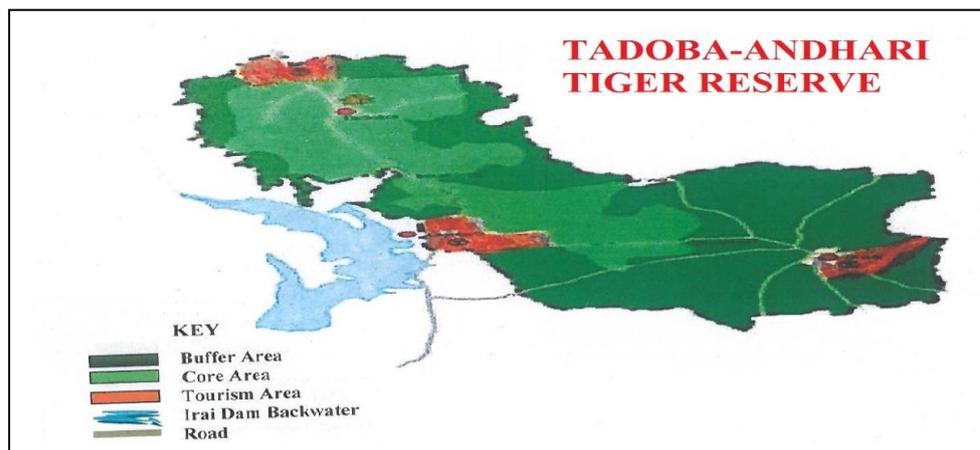
<sup>76</sup> Compartment history (CH) which includes details of compartment boundary, stream and riparian system, roads, perennial pools, reservoirs, lakes, groove of old large trees, villages, agriculture land, operations performed *etc.*, is an important document for deciding plan and strategies of 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

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

<sup>78</sup> TATR, STR and BTR

<sup>79</sup> 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

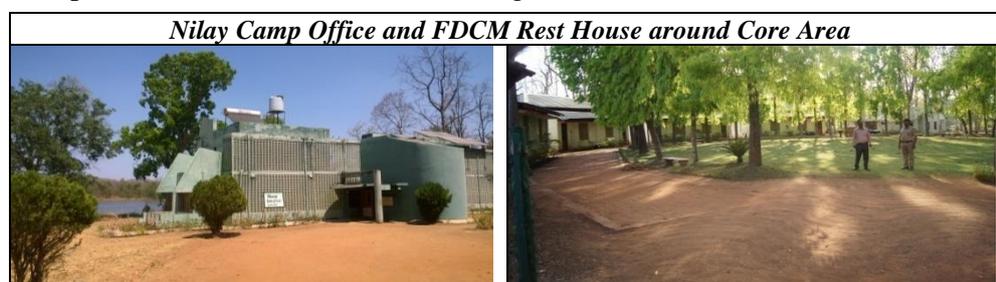
Department on commercial basis. Due to these facilities, a number of small food stalls had also come up in adjoining area.

➤ 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 pressure<sup>80</sup>.

➤ 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 Committee<sup>81</sup> without reference to the Conservator of Forest, NNTR. The area allotted had

<sup>80</sup> Report of Management Effectiveness Evaluation (MEE) report of NTCA (July 2016)

<sup>81</sup> 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).

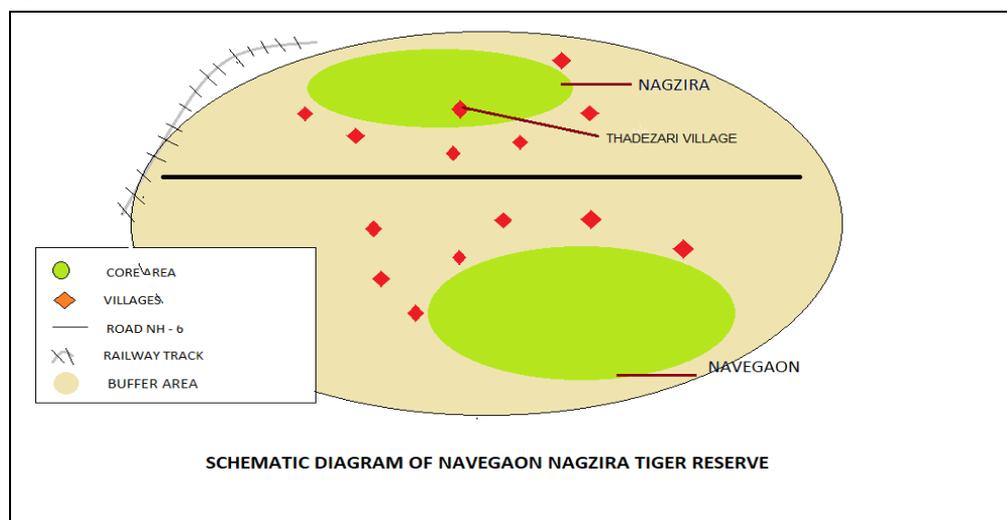
The reply was not convincing in view of the facts that as per NTCA guidelines, permanent tourist activities located inside core or critical tiger habitat were required to be phased out in MTR and TATR. Further, the Forest department should ensure that the tourist activities are strictly prohibited in 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.

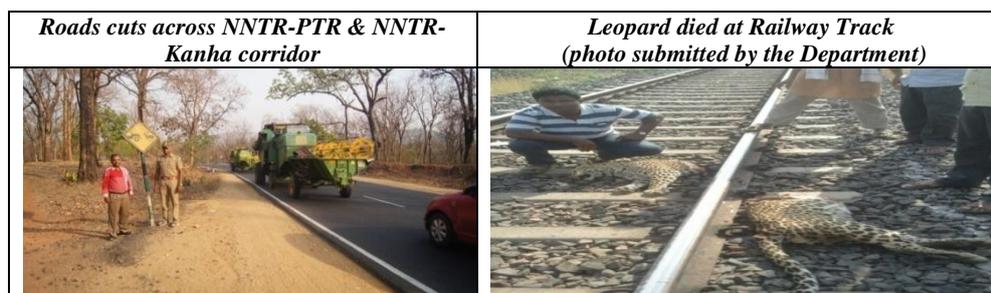
### 2.2.7.2 Management of corridors and buffer areas

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 swamping<sup>82</sup>. 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

<sup>82</sup> 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 (APO<sup>83</sup>) sanctioned by NTCA. Funding was to be shared by the GoI and GoM proportionately<sup>84</sup>. 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
<b>Total</b>	<b>655.48</b>	<b>364.46</b>	<b>135.6</b>	<b>228.86</b>		<b>363.67</b>
<i>Source : Information furnished by PCCF</i>						

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-plan<sup>85</sup> expenditure for all TRs as given in **Appendix 2.2.2**.

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

<sup>84</sup> 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

<sup>85</sup> 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 31<sup>st</sup> March<sup>86</sup>.

## **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.

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<sup>86</sup> 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)<sup>87</sup> 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

<sup>87</sup> 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 facilities<sup>88</sup> 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

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<sup>88</sup> 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 four<sup>89</sup> 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 amenities<sup>90</sup> 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
<b>Total</b>	<b>24</b>	<b>1784</b>	<b>1268</b>		<b>609</b>	

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

<sup>89</sup> Kolhapur, Ratnagiri, Sangli and Satara

<sup>90</sup> 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 1<sup>st</sup> 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.