

## PREFACE

1. This Report has been prepared for submission to the Governor under Article 151 of the Constitution.
2. Chapters I and II of this Report contain the findings of performance audit of certain programmes and audit of transactions in the various departments of the Government. Chapter III includes a report on integrated audit of the Disaster Management Department.
3. Chapter IV contains observations arising out of audit of Government Companies and Statutory Corporations. Audit of accounts of Government Companies is conducted by the Comptroller and Auditor General of India under the provisions of Section 619 of the Companies Act, 1956.
4. The Report containing the observations on Revenue Receipts is being presented separately.
5. The cases mentioned in the Report are among those which came to notice in the course of test audit of accounts during the year 2008-09 as well as those which had come to notice in the earlier years but could not be included in the previous Reports. Matters relating to the period subsequent to 2008-09 have also been included, wherever necessary.

## CHAPTER - I

### PERFORMANCE AUDIT

#### FOREST AND ENVIRONMENT DEPARTMENT

##### 1.1 Afforestation and working of Compensatory Afforestation Fund Management and Planning Authority

###### Highlights

*The Department of Forests and Environment, Government of Jharkhand is responsible for implementation of the National Forest Policy, 1988 through various schemes. Though schemes for maintenance and development of natural forests were undertaken through afforestation activities, they met with limited success in the State due to irregularities in implementation. While sizeable areas of forest land were transferred for non-forest purposes, there was no concerted effort to compensate the loss through formulation and implementation of compensatory afforestation schemes, for which funds were available. The internal control system and monitoring were ineffective. The main audit findings are given below:*

Working Plans of only 18 out of 32 territorial divisions were prepared and approved by the Government of India. Delays in preparation/approval of Working Plans ranged between two and 14 years. Afforestation activities undertaken during 2004-09 by 11 divisions for Rs 51.67 crore without approved Working Plans, indicated unplanned implementation of afforestation programmes.

*[Paragraph 1.1.6.2]*

During 2004-09, out of the total allotment of Rs 927.84 crore, Rs 119.01 crore remained unutilised. Despite persistent savings under the Plan head, provision of supplementary grants of Rs 60.48 crore were made.

*[Paragraph 1.1.7.1]*

Expenditure of Rs 2.35 crore was incurred on sites and plots not approved by Government.

*[Paragraph 1.1.8.1]*

Plantations in 10,918.29 hectares, shown to have been executed at a cost of Rs 14.58 crore, were doubtful.

*[Paragraph 1.1.8.2]*

Non/delayed handing over of plantations to the respective territorial divisions by Social Forestry/Afforestation divisions resulted in loss of Rs 5.30 crore. Further, in one forest division, 883.85 hectares of plantations was handed over to territorial divisions without any survival report, rendering the expenditure of Rs 1.73 crore incurred thereon, doubtful.

*[Paragraph 1.1.8.4]*

**Plantations schemes taken up during 1997-2007 in 12,000 hectares and 16.52 km (linear plantations) for Rs 20.82 crore failed as the survival percentage of the plants ranged between zero and 59.60.**

*[Paragraph 1.1.8.5]*

**Remittances into the Compensatory Afforestation Fund Management and Planning Authority accounts were short by Rs 127.53 crore. Further, Rs 38.44 crore was still to be realised for diversion of forest land for non-forest purposes.**

*[Paragraph 1.1.9.1]*

**In three forest divisions, unauthorised use of 4,655.819 hectares of forest land for non-forest purposes resulted in non-recovery of Rs 368.41 crore in the form of Net Present Value, cost of Compensatory Afforestation and Penal Compensatory Afforestation.**

*[Paragraph 1.1.9.2]*

**In eight forest divisions, Rs 65.14 crore could not be realised due to non/short raising of demand or part-realisation of Net Present Value.**

*[Paragraph 1.1.9.3]*

**Though Rs 183.30 crore was realised between April 2004 and March 2009 on account of the cost of Compensatory Afforestation, no scheme for Compensatory Afforestation had been taken up by the department as of March 2009.**

*[Paragraph 1.1.9.4]*

**In two forest divisions, the cost of catchment area treatment and plantations on canal banks amounting to Rs 134.12 crore, had not been realised, though stipulated by the Government of India.**

*[Paragraph 1.1.9.7]*

### **1.1.1 Introduction**

The National Forest Policy, 1988, envisages forest and tree coverage of 33 *per cent* of the total geographical area of the country by 2012, for maintaining environmental stability. The State of Jharkhand, spanning over an area of 79,714 square kilometres (sq Km), has a forest cover of 23,605.47 sq Km, (29.61 *per cent*) of its geographical area. Afforestation is taken up in the State under various State and Centrally sponsored schemes with the objective of improving the productivity of forests, preserving areas rich in biodiversity, motivating the local community to plant more trees and optimising the use of land resources. The Department of Forest and Environment (DoF&E), Government of Jharkhand is responsible for management of forests, checking soil erosion, water conservation, conservation of wild life and pollution control, including restoration of ecological balance.

With a view to conserve the forests, minimise adverse environmental impact of developmental activities and threats to ecological stability, the Central Government enacted the Forest (Conservation) Act, 1980. The Act aims to regulate the indiscriminate diversion of forest land for non-forest uses and to maintain a logical balance between the developmental needs of the country and the conservation of natural heritage. The cost of conservation measures, realised in the form of Net Present Value (NPV), cost of Compensatory

Afforestation (CA) *etc.* are borne by the user agencies. The amounts so realised are to be placed under the Compensatory Afforestation Fund Management and Planning Authority (CAMPA).

### **1.1.2 Organisational set up**

The Secretary is the administrative head of the DoF&E. There are three Principal Chief Conservators of Forests (PCCsF) who are the technical advisors to the State Government. They are assisted by three Additional Principal Chief Conservators of Forests (Additional PCCsF), seven Chief Conservators of Forests (CCsF) and five Regional Chief Conservators of Forests (RCCsF). In addition, there are 32 Conservators of Forests (CsF) and 62 Divisional Forest Officers (DFOs) to assist in efficient management and control. A forest division is subdivided into ranges which are headed by Range Officers. The ranges are divided into beats which are headed by Foresters while beats are further divided into sub-beats headed by Forest Guards.

### **1.1.3 Audit objectives**

The audit objectives were to assess whether:

- the planning process was in consonance with the objectives of afforestation and guidelines thereof;
- the funds allocated for execution of afforestation schemes were utilised economically and effectively;
- financial management under the CAMPA Fund was effective;
- mandatory conservation measures such as Compensatory Afforestation, Catchment Area Treatment *etc.* were carried out efficiently and effectively;
- the provisions of the Forest (Conservation) Act regarding afforestation were implemented efficiently and effectively and the conditions imposed by the Government of India were followed by the State Government and
- the internal controls in the department were adequate and effective.

### **1.1.4 Audit criteria**

The performance of the afforestation programme and the management of funds under CAMPA in the State were assessed with reference to the following:

- National Forest Policy, 1988, Indian Forest Act, 1927, Bihar Forest Rules and Forest Compendium;
- Bihar Financial Rules (as adopted by the Government of Jharkhand);
- Working Plans and Annual Plans of Operation of forest divisions; and
- Forest (Conservation) Act, 1980 and Rules and Guidelines issued thereunder.

### 1.1.5 Scope and methodology of audit

Performance audit was conducted between August 2008 and March 2009 in 33<sup>1</sup> out of 62 Forest Divisions, two<sup>2</sup> out of 32 offices of Conservators of Forest, one<sup>3</sup> out of three offices of Additional PCCsF and one out of three offices of the PCCsF for the period from 2004-05 to 2008-09. Samples with respect to the divisions were selected on random basis. Data/information collected through proforma and questionnaires from all test-checked divisions and other offices were also analysed. An entry conference was held with the Secretary, DoF&E on 9 January 2009. The Secretary, DoF&E was apprised of the audit objectives, scope and methodology of the review. Audit findings were reported to the Government in June 2009. An exit conference was held on 18 November 2009 with the Secretary, DoF&E, who agreed with the observations made in the review and assured that appropriate corrective measures in respect of the deficiencies pointed out therein would be taken.

#### *Audit findings*

### 1.1.6 Planning

Afforestation activities aim to increase tree plantations schemes to ensure ecological balance and meet the requirements of local people for forest produce. Plantations schemes<sup>4</sup>, under afforestation activities comprised Rehabilitation of Degraded Forest (RDF), Quick Growing Species (QGS), Soil Conservation (SC), Minor Forest Produce (MFP), Lac Development and Fuelwood and Fodder Project (FFP). These schemes were to be completed in four years<sup>5</sup> after which the plantations were required to be handed over to the respective territorial divisions for further maintenance and protection.

#### 1.1.6.1 Forest areas in the State

The status of forest areas in Jharkhand from 2001 to 2007 since the creation of the State is given in **Table-1**:

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<sup>1</sup> **Territorial Divisions:** Bokaro, Chaibasa, Chatra South, Daltonganj North, Deoghar, Dhalbhum, Dhanbad, Dumka, Garhwa North, Giridih, Godda, Gumla, Hazaribag West, Jamtara, Khunti, Kolhan, Latehar, Pakur, Porahat, Ranchi West, Saraikela and Simdega; **Social Forestry Divisions:** Adityapur, Chaibasa, Deoghar, Dumka, Garhwa, Hazaribag, Koderma and Simdega; **Wild Life Division:** Ranchi and **Afforestation Divisions:** Chaibasa and Chatra.

<sup>2</sup> Conservators of Forests, Core Area, Daltonganj and Conservator of Forest-cum-Director, Palamu Project Tiger, Daltonganj.

<sup>3</sup> Additional PCCF, Development, Jharkhand.

<sup>4</sup> **RDF:** Planting operations in degraded forests to increase the density/tree cover in degraded forest areas; **QGS:** Planting operations in open forests to meet commercial, industrial and domestic requirements; **SC:** Planting operations in open forests to check soil erosion; **MFP:** Planting operations in open forests by planting species of bamboo, sisal, tasar *etc.*; **Lac Development:** Planting operations in open forests by planting lac host plants and **FFP:** Planting operations in open forests to meet the requirement of fuelwood and fodder for people dwelling in villages.

<sup>5</sup> **1<sup>st</sup> year: advance work** - survey, demarcation, pit digging, fencing etc for plantations; **2<sup>nd</sup> year: completion work** - planting saplings grown in temporary/permanent nurseries, weeding, hoeing *etc.*; **3<sup>rd</sup> and 4<sup>th</sup> years: maintenance of plants** - weeding, hoeing, replacement of dead plants *etc.*

**Table-1: Status of forests in Jharkhand**

*(in square km)*

Year	Recorded Forest Area#	Dense Forest			Open Forest	Total (5+6)	Scrubs
		Very Dense Forest	Moderately Dense Forest	Total (3+4)			
1	2	3	4	5	6	7	8
2001	23605	11681	*	11681	10850	22531	976
2003	23605	2544	9076	11620	10949	22569	807
2005	23605	2544	9078	11622	10969	22591	733
2007	23605	2590	9899	12489	10405	22894	683

*Source: Reports of Forest Survey of India.*

*\* This classification was not there in survey of 2001.*

*# Details of differences between total recorded forest areas and areas of dense forest, open forest and scrubs were not available in the reports of the Forest Survey of India*

As compared to 2001, total dense forests showed a declining trend till 2003 and an increasing trend thereafter (in 2005, there was an increase of two sq Km and in 2007, 808 sq Km).

#### **1.1.6.2 Non/delayed preparation of Working Plans**

Afforestation schemes are guided by Working Plans (WPs) which are fundamental documents for execution of afforestation activities, drawn for each territorial division for a period of 10 years by the four Working Plan Circles<sup>6</sup> under Conservators of Forests (CsF) after undertaking field surveys. The WPs contain Annual Plans for conservation/protection of forest areas, improvement of degraded forests and reclamation of mined areas are to be approved by the Government of India (GOI). These also outline ‘working areas’ for afforestation in blank areas, degraded areas and ‘protection and improvement’ in areas with specific requirements. Further, the National Working Plan Code Procedure<sup>7</sup> provides for finalisation of a WP two years in advance of expiry of the existing plan and for management of forests, it provides for submission of control forms<sup>8</sup> by DFOs annually to the respective CsF within two months of the close of the control year<sup>9</sup>.

- Information collected from the Additional PCCF on WPs revealed that out of the 32 territorial divisions, WPs for only 18 divisions for various periods had been approved by GOI. In the remaining 14 divisions<sup>10</sup>, the preparation of new WPs was pending at various stages though WPs of these divisions had expired between 1994-95 and 2006-07. The delays in

**There were delays ranging between two and 14 years in preparation/approval of Working Plans**

<sup>6</sup> Conservators of Forests, Working Plan Circle, Chaibasa, Daltonganj, Hazaribag and Ranchi.

<sup>7</sup> A procedure which standardises the preparation and revision of Working Plans in order to provide Working Plan Officers a set of instructions and standing orders in a compact and convenient form.

<sup>8</sup> **Control Form 1:** List of deviations from prescriptions of Working Plans; **Control Form 2:** Felling provisions of the Working Plan for volume yield; **Control Form 3:** Detailed figures of volume yield and results of felling; **Control Form 4:** Control for area yield; **Control Form 5:** Control for cultural operations; **Control Form 6:** Record of cultural operations suggested but not prescribed and left to the discretion of the territorial staff; and **Control Form 7:** Plantations control.

<sup>9</sup> Control year is reckoned from July to June.

<sup>10</sup> Bokaro, Chaibasa North, Chaibasa South, Chatra North, Chatra South, Dhalbhum, Garhwa South, Giridih, Giridih Afforestation, Hazaribag East, Hazaribag West, Latehar, Ramgarh and Saranda.

Rupees 51.67 crore was spent on afforestation activities without Working Plans

preparation/approval of WPs ranged between two and 14 years.

- In six<sup>11</sup> out of 33 test-checked divisions, control forms, essential for preparation of the Working Plans, were not prepared.
- In 11<sup>12</sup> out of 33 test-checked forest divisions, afforestation activities were undertaken between 2004-05 and 2007-08, after incurring expenditure of Rs 51.67 crore without any WPs. The WPs of these divisions expired between 1994-95 and 2006-07.

The efficacy of the WPs of these divisions, prepared in the absence of control forms, was in doubt and execution of afforestation activities, without approved WPs, indicated unplanned implementation of afforestation schemes.

The Government, while accepting the audit observation, stated (November 2009) that for divisions having no approved WPs, action was being taken for preparation and approval of the same. Further, short term WPs were being formulated for the intervening period.

### 1.1.6.3 Non-demarcation of forest areas

According to Rule 11 of the Bihar Forest Rules, notified forest areas should be demarcated with the cadastral<sup>13</sup> map of the area.

In three<sup>14</sup> out of 33 test-checked forest divisions, out of 2.25 lakh hectares of notified forest land, only 1.81 lakh hectares were demarcated, leaving 44,095.39 hectares of such land non-demarcated and exposing these areas to unauthorised occupation.

The Government, while accepting the audit observation, stated (November 2009) that demarcation was under progress.

## 1.1.7 Financial Management

### 1.1.7.1 Financial position of the Department

The allocation of funds and expenditure incurred during 2004-09 were as given in **Table-2**.

**Table-2: Budget provisions and expenditure**

*(Rupees in crore)*

Year	Budget provisions (Plan + Non-Plan)	Supplementary grant	Total	Expenditure	Savings (Col. 4-5)	Percentage of savings
1	2	3	4	5	6	7
2004-05	176.75	5.73	182.48	159.63	22.85	13
2005-06	172.96	10.33	183.29	162.64	20.65	11
2006-07	196.57	8.77	205.34	176.27	29.07	14
2007-08	184.73	9.67	194.4	169.93	24.47	13
2008-09	196.83	25.98	222.81	200.84	21.97	10
<b>Total</b>	<b>927.84</b>	<b>60.48</b>	<b>988.32</b>	<b>869.31</b>	<b>119.01</b>	

Source: Budgets of the State Government and Finance Accounts.

<sup>11</sup> Bokaro, Core Area, Daltonganj, Deoghar, Giridih, Godda and Simdega.

<sup>12</sup> Chaibasa South, Chatra North, Chatra South, Dhalbhum, Garhwa South, Giridih, Hazaribag East, Hazaribag West, Latehar, Saraikela and Saranda.

<sup>13</sup> A village-wise map showing plot-wise status of forests.

<sup>14</sup> Giridih, Gumla and Jamtara.

Audit observed the following:

- The department could not spend the grants during 2004-09 and there were persistent savings ranging between 10 and 14 *per cent*. Despite this, provision of supplementary grants of Rs 60.48 crore were made, which was undesirable and showed laxities in budgetary control.
- The area covered (*Appendix-1.1*) under various afforestation schemes *viz.* Rehabilitation of Degraded Forest (RDF), Quick Growing Species (QGS), Soil Conservation (SC), Minor Forest Produce (MFP), Lac Development, and Fuel wood and Fodder Project (FFP) and the expenditure incurred on them during 2004-08 were as given in **Table-3**.

**Table-3: Area covered and expenditure incurred under various afforestation schemes**

(Area covered in hectares and amount in Rupees in crore)

Year	RDF		QGS		Soil Conservation		MFP		Lac Development		FFP		Total area covered	Total expenditure
	Area covered	Exp	Area covered	Exp	Area covered	Exp	Area covered	Exp	Area covered	Exp	Area covered	Exp		
2004-05	25030.90	40.07	6891.30	19.18	2546.82	6.27	7575.83	11.63	678.44	1.67	0.00	0.00	42723.29	78.83
2005-06	16789.73	39.50	2098.92	15.75	733.21	4.72	4716.82	11.62	115.44	1.27	0.00	0.00	24454.12	72.86
2006-07	11262.45	31.76	2935.83	11.97	4665.60	10.28	4985.19	11.09	2291.01	4.16	1522.50	4.16	27662.59	73.42
2007-08	0.00	15.46	0.00	6.37	0.00	4.92	8193.80	16.59	1200.48	5.37	344.15	3.22	9738.43	51.94
<b>Total</b>	<b>53083.08</b>	<b>126.79</b>	<b>11926.05</b>	<b>53.27</b>	<b>7945.63</b>	<b>26.19</b>	<b>25471.64</b>	<b>50.93</b>	<b>4285.37</b>	<b>12.47</b>	<b>1866.65</b>	<b>7.38</b>	<b>104578.43</b>	<b>277.05</b>

Source: Annual, physical and financial achievement reports prepared by DoF&E

#### 1.1.7.2 Funding of Centrally assisted schemes

Centrally assisted schemes, which include schemes for afforestation activities, wild life conservation *etc.*, are operated under two categories, *viz.* Centrally sponsored schemes with 100 *per cent* Central assistance and Central Plan schemes funded by both the Central and State Governments in ratios of 75:25 or 50:50. Details of funding in respect of Centrally sponsored schemes, are given in **Table-4**.

**Table-4: Allotment and expenditure under Centrally sponsored schemes**

(Rupees in crore)

Year	Centrally sponsored schemes			Central Plan schemes		
	Budget Allocation	Expenditure	Saving	Budget Allocation	Expenditure	Saving
2004-05	2.75	2.34	0.41 (15)	10.63	5.97	4.66 (44)
2005-06	2.55	0.65	1.90 (74)	9.83	4.42	5.41 (55)
2006-07	6.90	5.12	1.78 (26)	11.00	Nil	11.00 (100)
2007-08	5.45	2.50	2.95 (54)	10.30	2.67	7.63 (74)
2008-09	4.65	2.27	2.38 (51)	8.90	3.18	5.72 (64)
<b>Total</b>	<b>22.30</b>	<b>12.88</b>	<b>9.42 (42)</b>	<b>50.66</b>	<b>16.24</b>	<b>34.42(68)</b>

Source: State Budgets and Finance Accounts (Figures in bracket indicate percentage)

**The department failed to utilise Rs 43.84 crore under Centrally sponsored schemes during 2004-09**

From the tables it may be seen that during 2004-09, the department failed to utilise Rs 43.84 crore and there were savings ranging between 15 and 74 *per cent* under Centrally sponsored and Central Plan schemes. During 2006-07, the entire allotment of Rs 11 crore under Central Plan schemes, sanctioned for an elephant project, a sanctuary, a biological park *etc.* was not utilised due to stated reason of delayed release of Central grants. This indicated lack of commitment towards the objectives of the scheme.

### 1.1.7.3 Financial performance of divisions

Of 33 test-checked divisions, three divisions<sup>15</sup> failed to furnish complete information regarding allotment and expenditure during 2004-08. Out of Rs 355.53 crore (Plan: Rs 214.30 crore and Non-Plan: Rs 141.23 crore) allotted to 30 test-checked divisions<sup>16</sup>, Rs 346.89 crore (Plan: Rs 207.96 crore and Non-Plan: Rs 138.93 crore) was spent during 2004-08, resulting in surrender/lapse of Rs 8.64 crore (Plan: Rs 6.34 crore and Non-Plan: Rs 2.30 crore).

### 1.1.7.4 Non-utilisation of funds

Instances of failure to spend the available funds are discussed in the succeeding paragraphs.

- As per instructions of the State Government issued time to time, allotments to the divisions for plantations schemes are to be based on proposals submitted by the divisions after conducting surveys of the proposed sites as per the approved WPs of the divisions.

In four<sup>17</sup> out of 33 test-checked forest divisions, a total allotment of Rs 58.88 lakh was made during 2006-08, based on proposals of the divisions for plantations under various schemes covering 465 hectares. However, after receipt of the allotments, plantations sites covering 312 hectares were found to be unsuitable and Rs 41.60 lakh was surrendered. Thus, due to preparation of proposals without conducting proper surveys and ascertaining requirements, Rs 41.60 lakh could not be utilised.

- In two (Khunti and Social Forestry division, Dumka), out of 33 test-checked forest divisions, Rs 60.85 lakh, allotted between March 2005 and March 2008 for various plantations and other related development works during 2004-08, lapsed due to presentation of cheques at the fag end of the financial year.

**Presentation of cheques at the fag end of the financial year resulted in lapse of allotment of Rs 60.85 lakh**

**1.1.7.5** The system of Letter of Credit (LOC) was introduced (April 1984) as a measure of financial control over expenditure. LOCs were to be issued by their concerned Conservators of Forests on receipt of allotments to the divisions. In violation of the above system, in two forest divisions (Khunti and Simdega), LOCs for Rs 10.95 crore were issued between March 2006 and July 2007 by the Regional Chief Conservator of Forests, Ranchi, who were not authorised by the State Government to do so. Thus, it led to unauthorised drawal of money and defeated the purpose of introducing system of LOC.

**Utilisation certificates for Rs 14.20 lakh, disbursed to 142 committees, were neither demanded by the divisions nor submitted by the committees**

**1.1.7.6** Under the Integrated Forest Protection Scheme (75:25), fire protection measures were to be executed with the assistance of *Van Suraksha Samiti/Village Forest Management and Protection Committee/Eco-Development Committees* on payment of Rs 10,000 per committee. In seven

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<sup>15</sup> Territorial divisions: Dhalbhum and Khunti and Social Forestry, Simdega.

<sup>16</sup> **Territorial divisions:** Bokaro, Chaibasa South, Chatra South, Daltonganj North, Deoghar, Dhanbad, Dumka, Garhwa North, Giridih, Godda, Gumla, Hazaribag West, Jamtara, Kolhan, Latehar, Pakur, Porahat, Ranchi West, Saraikela, Simdega and Wildlife, Ranchi; **Social Forestry divisions:** Adityapur, Chaibasa, Deoghar, Dumka, Garhwa, Hazaribag and Koderma; **Afforestation divisions:** Chatra and Singhbhum.

<sup>17</sup> Chaibasa South, Hazaribag West, Kolhan and Porahat.

forest divisions<sup>18</sup>, during 2007-08, Rs 14.20 lakh was disbursed at the rate of Rs 10,000 per committee to 142 committees. However, utilisation certificates were neither demanded by the divisions nor submitted by the committees. In the absence of utilisation certificates, the genuineness of the advances and the actual work done could not be ascertained.

**Rupees 15.58 lakh was diverted for other purposes without obtaining orders of the competent authority**

**1.1.7.7** In four<sup>19</sup> test-checked forest divisions, it was noticed that during 2007-08, Rs 27.88 lakh was allotted for various plantations schemes/activities. Out of Rs 27.88 lakh, Rs 4.18 lakh and Rs 11.40 lakh were diverted for items not covered by the scheme by DFOs and the Additional PCCF respectively, without obtaining orders of the competent authority. Thus, expenditure of Rs 15.58 lakh was unauthorised.

**In violation of the financial rules, liability of Rs 13.17 lakh was created**

**1.1.7.8** Rule 8 of the Bihar Financial Rules, Vol-I prohibits any expenditure or creation of liability unless provided for in the budget. However, in three forest divisions, it was noticed that during 2007-09, liability of Rs 13.17 lakh in respect of afforestation works was created by spending more than the allotted funds (*Appendix-1.2*).

## **1.1.8 Plantations activities**

### **1.1.8.1 Unauthorised execution of plantations activities**

**Plantations involving an expenditure of Rs 2.35 crore were taken up on sites not approved by the Government**

- In 12 out of 33 test-checked forest divisions, plantations under different schemes, involving an expenditure of Rs 2.35 crore, were taken up on sites/plots other than those approved by the Government<sup>20</sup> (*Appendix-1.3*). The Forest Department stated that execution of the work was done as per actual site conditions. The reply is not acceptable as the sites on which the works were executed had not been approved by the Government.

**Expenditure of Rs 4.69 crore was incurred without preparation and approval of site specific plan**

- According to instructions issued by the Chief Conservator of Forests (Development), Jharkhand, Ranchi, (May and November 2002) execution of plantations schemes and entry point activities<sup>21</sup> were to be taken up only after obtaining approval of site-specific estimates by the respective Conservators of Forests. In violation of the above instructions, in six<sup>22</sup> forest divisions, during 2004-08, entry point activities and plantations schemes in 3,368.54 hectares, involving expenditure of Rs 4.69 crore, were taken up without preparation and approval of site-specific estimates.

The Government, while accepting the audit observation, stated (November 2009) that action was being taken to obtain *ex-post facto* sanction wherever site-specific estimates were not forwarded to the competent authority.

<sup>18</sup> Bokaro, Chaibasa South, Dhanbad, Latehar, Porahat, Ranchi West and Wildlife Ranchi.

<sup>19</sup> Dumka, Gumla, Jamtara and Porahat.

<sup>20</sup> Government's approval is accorded only after it is certified that (a) the proposed scheme was as per approved working plan; (b) the proposed sites/plots are as per approved working plan and (c) no afforestation has been carried out on the proposed sites during the last ten years.

<sup>21</sup> Entry point activities have been made an integral part of all plantations schemes to ensure people's co-operation in forestry activities and include creation of community assets and imparting training to improve the financial status of the local populace.

<sup>22</sup> Chatra (Afforestation), Chaibasa (S), Deoghar, Godda, Saraikela and Simdega.

**During 2005-07, expenditure of Rs 1.82 crore was incurred on plantations of banned species**

- With a view to conserving the environment, PCCF, Bihar and PCCF, Jharkhand imposed (March 1998 and December 2006 respectively) ban on plantations of acacia<sup>23</sup> trees in the State. Further, stern action was to be taken against the officers responsible for violating the orders. However, it was found that in violation of the above orders, in seven<sup>24</sup> forest divisions, during 2005-07, expenditure of Rs 1.82 crore was incurred on plantations of 10.98 lakh plants, purchase of 26.28 Kg of seeds and 1.24 lakh plants of acacia species under various afforestation schemes. No action was, however, taken against the erring officials.

#### **1.1.8.2 Doubtful execution of work**

As per instructions of the State Government issued time to time, allotments to the divisions for plantations schemes are to be based on proposals submitted by them after conducting surveys of the proposed sites as per the approved WPs of the divisions. Expenditure on maintenance of plants is to be limited to the number of plants surviving during the third and fourth year of plantations. Excess amounts, if any, are to be surrendered. Audit observed the following:

**An expenditure of Rs 4.02 lakh on plantations in 37.88 hectares land was doubtful**

- In Dumka forest division, during 2007-08, allotment of Rs 9.86 lakh was shown as spent on advance works under MFP (Bamboo) scheme in 92.94 hectares in Upperbaskia village. However, as per the Area Demarcation Register,<sup>25</sup> the total notified forest area under Upperbaskia village was only 55.06 hectares. Thus, the work shown as executed in remaining 37.88 hectares for Rs 4.02 lakh was doubtful.

The Government, in its reply, stated (November 2009) that in Upperbaskia village, only 56 hectares of forest land was demarcated but plantations was done in 92.94 hectares as specified in the WP. The reply of the Government is not acceptable as the notified forest area available for plantations was only 55.06 hectares and plantations in the forest area over and above notified forest area is not possible.

**During 2004-08, execution of plantations schemes in 10,046.08 hectares at an expenditure of Rs 14.58 crore was doubtful**

- In 19 forest divisions, Rs 15.97 crore was shown to have been incurred on plantations in 10,918.29 hectares of land during 2004-08. However, the WPs of these divisions disclosed that the blank/degraded land available for plantations under the schemes was only 872.21 hectares. Thus, expenditure of Rs 14.58 crore on plantations in 10,046.08 hectares was outside the scope of the envisaged WPs (*Appendix-1.4*).

The Government, in its reply, stated (November 2009) that the WPs were too old and plantations work was done as per the present site situation and availability of blank areas. The reply is not acceptable as the sites/plots for plantations were selected from the approved WPs and were certified by the divisions.

- As per the instruction (July 2004) of RCCF, Ranchi, maintenance was to be done only on the basis of survival of plants. In Forest Division, Dumka,

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<sup>23</sup> A tree or shrub found in warm climates

<sup>24</sup> **Territorial divisions:** Chatra South, Deoghar, Dhanbad, Hazaribag West and Jamtara  
**Social Forestry divisions :** Hazaribag and Koderma.

<sup>25</sup> The register shows the details of notified forest areas and demarcated areas.

expenditure of Rs 8.71 lakh was shown to have been incurred on fourth year maintenance of 5,79,550 plants during 2007-08. Audit observed that 5,12,584 plants, i.e. 88 *per cent* had survived in the fourth year of plantations. The expenditure of Rs 0.99 lakh shown incurred on the maintenance of the remaining 66,966 dead plants was thus, doubtful.

The Government, in its reply (November 2009), accepted the percentage of survival of the plants and stated that the savings out of the funds provided for maintenance were utilised in grass-cutting and fire protection works. The reply is not acceptable as the entire expenditure was shown to have been incurred on fourth year maintenance of plants, which did not cover grass-cutting and fire protection works.

#### 1.1.8.3 *Wasteful expenditure on plantations*

- Social Forestry division, Dumka, revised the scope of a work to only 25 hectares after completion work on 50 hectares had already been done under the Soil Conservation scheme. The scope was revised due to non execution of maintenance works by a Range Officer in remaining 25 hectares. Failure of the department to complete the work within 50 hectares resulted in wasteful expenditure of Rs 6.14 lakh incurred on completion work (2005-06) in 25 hectares as the saplings would not survive for want of maintenance work. Fresh advance work would, therefore, be needed for planting saplings on this site in future and the objective of soil conservation would also not be fulfilled.
- In three<sup>26</sup> forest divisions, advance work under the Clonal Seed Orchard Scheme (2007-08 to 2011-12) in eight hectares was taken up during 2007-08 for Rs 7.69 lakh but no funds were provided for completion work. Thus, expenditure of Rs 7.69 lakh on the advance work became wasteful.

**Non-provision of funds for completion work resulted in wasteful expenditure of Rs 7.69 lakh**

#### 1.1.8.4 *Non/delayed handing over of plantations*

Plantations activities in forest areas are carried out by Afforestation, Social Forestry and Research divisions. In order to ensure further maintenance, protection and management of the plantations, they are to be handed over to the respective territorial divisions along with details of surviving plants, as funds for maintenance (after fourth year) are provided to the territorial divisions only. The PCCF, Jharkhand, instructed (October 2005) all the CCsF/Regional CCsF to ensure timely handing over of plantations after completion of the fourth year. Test check revealed instances of failure/delays in handing over of plantations and associated losses as discussed below:

- In three<sup>27</sup> test-checked divisions, plantations completed in 9,731.59 hectares between 1986 and 2003 were not handed over to the territorial divisions even after the lapse of two to 19 years, for which there were no reasons on record. The impact of non-maintenance of plants on survival percentage due to non-transfer of plantations could not be ascertained in audit as survival reports were not furnished by the divisions.

**Even after the lapse of two to 19 years, 9,731.59 hectares of plantations were not handed over to the territorial divisions**

<sup>26</sup> Bokaro, Giridih and Wild Life, Ranchi.

<sup>27</sup> **Social Forestry divisions:** Adityapur, Dumka and Simdega

**Delay in handing over of plantations resulted in avoidable loss of Rs 5.30 crore**

- In eight<sup>28</sup> test-checked forest divisions, 2.04 crore plants were planted in 14,312.52 hectares of forest land during 1997-2005. On the dates of completion of the schemes, the survival percentage ranged between 82 and 93. Though the plantations were required to be handed over to the respective territorial divisions between 2000 and 2008 for further maintenance and protection, they were actually handed over between January 2004 and November 2008, after delays up to seven years. The survival percentage, on the actual dates of handing over declined, ranging between 67 and 77 *per cent*. Due to delays in handing over of plantations, 31.40 lakh plants died on which Rs 5.30 crore had been spent (**Appendix-1.5**). This could have been avoided had the plantations been handed over on schedule to the territorial divisions for further maintenance after the fourth year.
- According to the instructions of the Department, plantations are to be handed over to the territorial divisions with the survival report. Scrutiny of records of the Simdega forest division revealed that the transfer of 2001-02 plantations on 1,007.50 hectares by the DFO, SF division, Simdega was refused (February 2006) by the DFO, Simdega Forest Division for want of a survival report. The survival report, when subsequently provided, showed that the plantations had failed. The same DFO, SF division, Simdega, while holding dual charge of both the Social Forestry and territorial divisions, handed over (October 2007) plantations of 883.85 hectares pertaining to periods between 1998 and 2004, without any survival reports. Handing over of plantations without any survival reports was in violation of the departmental instructions. In the absence of survival reports, it could not be ascertained whether the plantations survived or not. Given this backdrop, the transfer of plantations in the absence of survival reports was fraught with the risk of misappropriation of Rs 1.73 crore, incurred on the plantations.

#### **1.1.8.5 Failure of plantations**

**During 1997-2007, plantations carried out in 12,000 hectares and 16.52 km (linear plantations) at an expenditure of Rs 20.82 crore failed**

In 1998, survival of plants below 60 *per cent* was termed as failure of the plantations by CCF (Development) and responsibility was to be fixed for the same.

In 12<sup>29</sup> test-checked forest divisions, 1.74 crore plants were planted under various schemes in 12,000 hectares and 16.52 km (linear plantations<sup>30</sup>) during 1997-2007. The survival percentage of the plants, after completion of the schemes at an expenditure of Rs 20.82 crore ranged between zero and 59.60 (**Appendix-1.6**). In none of the cases was responsibility for failure of the plantations fixed by the department as of March 2009.

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<sup>28</sup> **Afforestation divisions:** Chaibasa and Chatra. **Social Forestry divisions:** Adityapur, Chaibasa, Dumka, Garhwa, Hazaribag and Koderma.

<sup>29</sup> **Territorial divisions:** Bokaro, Daltonganj (North) and Deoghar **Social Forestry divisions:** Adityapur, Chaibasa, Dumka, Garhwa, Hazaribag, Koderma and Simdega **Afforestation divisions:** Chaibasa and Chatra.

<sup>30</sup> Plantations along the roads.

**1.1.8.6 Status of permanent nurseries**

**Closure of 16 permanent nurseries due to incorrect assessment of requirements, resulted in infructuous expenditure of Rs 95.89 lakh besides loss of Rs 2.93 lakh on dead plants**

With a view to promote forestry, 156 permanent nurseries (PNs) in 176.108 hectares were established by the DoF&E under different forest divisions during 2000-03 at a cost of Rs 6.22 crore (Rs 3.53 lakh per hectare for 176.108 hectares).

In five<sup>31</sup> test-checked forest divisions, 18 PNs were established (2000-03) in 29.125 hectares at a cost of Rs 1.03 crore. Subsequently, from 2008-09, DoF&E made no provision of funds and decided (February 2008) to maintain these nurseries under the National Rural Employment Guarantee Scheme (NREGS). However, the district authorities accepted only two nurseries (four hectares) of rural areas under NREGS as the scheme was operative in rural areas only. The remaining 16 nurseries (25.125 hectares) in urban areas were closed due to improper site selection, adverse soil condition, non-availability of water and want of demand for plants. Incorrect assessment of requirement of PNs resulted in infructuous expenditure of Rs 95.89 lakh incurred on establishment of these nurseries. Further, due to non-maintenance, 1.87 lakh plants which were alive at the time of closure of nurseries, died, resulting in a loss of Rs 2.93 lakh.

**1.1.8.7 Fuelwood and fodder plantations not taken up for two years**

**Fuelwood and fodder plantations were not taken up for two successive years during 2004-06**

In Jharkhand, a large proportion of the population depends on forests for fuelwood and fodder. Plantations under the fuelwood and fodder scheme are carried out with the objectives of utilising the potential of forest resources for supplementing the source of subsistence of the people and minimising the cascading effect of population and cattle growth on forests.

Information furnished by PCCF, Jharkhand revealed that no funds had been provided for plantations under the fuelwood and fodder scheme during 2004-05 and 2005-06. However, Rs 9.18 crore was made available during 2006-08 for plantations in 1,866.65 hectares, of which, only Rs 7.38 crore was spent. Not taking up fuelwood and fodder plantations for two successive years reflected the department's apathy towards realisation of the objectives of the scheme.

The Government, while accepting the audit observation, stated (November 2009) that plantations had been taken up from 2006-07 onwards under the State Plan.

**1.1.8.8 Poor silvicultural operations**

Apart from execution of plantations schemes, one of the main objectives of the Forest Department is to create favourable conditions, by undertaking silvicultural activities<sup>32</sup> for progression of ecological succession<sup>33</sup> in areas where regression has set in and to improve the overall ecological succession. These activities also improve the general condition of health, growth and stocking of the principal species, augmenting the supply of timber and other

<sup>31</sup> **Territorial divisions:** Dhanbad and Giridih, **Social Forestry divisions:** Garhwa, Hazaribag and Simdega.

<sup>32</sup> Subsidiary felling, improvement felling, thinning, gridling of undergrowth, felling refuse, pruning etc. carried out for development of forest crops.

<sup>33</sup> The process by which a plant or animal community successively gives way to another until a stable climax is reached.

forest produce.

Scrutiny of annual progress reports revealed that during 2004-08, silvicultural activities on an area of 2,305.20 hectares were undertaken and expenditure of Rs 20 lakh was incurred (2005-06) on them, which was only 2.3 per cent of the total area covered (1,00,369.10 hectares) under plantations schemes during 2001-04. This indicated the department's lack of initiative towards undertaking silvicultural operations. Further, as per the existing plantations schemes, maintenance of plants was restricted to two years after completion work, whereas the compensatory afforestation schemes provided for maintenance for five years after completion work. The reasons for limiting the period of maintenance to only two years were not furnished by the department though called for by Audit. Non-maintenance of plants after two years and failure to undertake silvicultural operations could be one of the reasons for the low survival of plants (*paragraph 1.1.8.5 of this report*).

#### 1.1.8.9 Shortage of manpower

Shortage of manpower in the department *vis-à-vis* the sanctioned strength ranged between one and 54 per cent in various cadres during 2008-09 as given in the **Table-5**.

Compared to 2002-03, there was increased shortage of manpower during 2008-09 in lower formations

**Table-5: Sanctioned strength and men-in-position**

Designation	Sanctioned strength		Men-in-position		Shortage	
	2002-03	2008-09	2002-03	2008-09	2002-03	2008-09
Indian Forest Service	130	130	116	129	14 (11)	1 (1)
Jharkhand Forest Service	156	156	137	100	19 (12)	56 (36)
Range Officer of Forest	383	383	224	278	159 (42)	105 (27)
Forester	1056	1062	726	587	330 (31)	475 (45)
Forest Guards	3383	3883	2050	1788	1333 (39)	2095 (54)

Source: *Jharkhand at a Glance 2002-03 and 2008-09*

(Figures in bracket indicate percentage)

Further, the shortage, particularly in the lower formations in the field, increased in 2008-09 as compared to 2002-03. The shortage of manpower, especially in the field<sup>34</sup>, could be one of the reasons for failure of plantations and deficient management of forests in terms of protection and maintenance.

#### 1.1.9 Setting up of Compensatory Afforestation Fund Management and Planning Authority

The objective of the Forest (Conservation) Act, 1980, is to regulate the indiscriminate diversion of forest land for non-forest use and to maintain a logical balance between the developmental needs of the country and the conservation of natural heritage. In exercise of the powers conferred by the Environment (Protection) Act, 1986 and in pursuance of the Supreme Court's order of 30 October 2002, the Central Government constituted an authority known as the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) to manage the flow of funds towards compensatory afforestation and to compensate the depletion of forests due to the diversion of

<sup>34</sup> Field staff comprising of Range Officers, Foresters and Forest Guards are primarily responsible for execution of plantations schemes, their maintenance and protection, silvicultural operations, prevention of grazing, encroachment and illicit felling of trees.

forest land for non-forest uses. Any money recoverable, in compliance of the conditions stipulated by the Central Government, while according approval<sup>35</sup> of diversion of forest land for non-forest purposes under Forest (Conservation) Act, 1980, would form part of the CAMPA Fund.

Approvals for diversion of forest land for non-forest purposes are accorded by GOI on fulfilment of stipulated conditions which include payment of net present value (NPV<sup>36</sup>), carrying out mandatory compensatory afforestation (CA), catchment area treatment (CAT<sup>37</sup>) in irrigation projects, creation of safety zones, reclamation of open areas in mining projects, strip plantations in case of highway projects etc. The cost of such measures are borne by the user agencies. It is the responsibility of DoF&E to ensure that no forest land is diverted in violation of the above mentioned procedure.

#### 1.1.9.1 Status of funds realised from user agencies to CAMPA

**Remittance to the CAMPA account was short by Rs 127.53 crore. Rupees 38.44 crore was still to be realised**

As per information furnished by DoF&E for the period from November 2002 onwards, 127 proposals for diversion of 8,749.13 hectares of forest land were approved by GOI. The position of land transferred, amounts of NPV, cost of CA etc. realisable from user agencies prior to November 2002 was not furnished by the department to Audit. The status of CAMPA Fund for the period prior to constitution of CAMPA and thereafter is given in the **Table-6**:

**Table-6: Status of CAMPA Fund**

Period	Area proposed for diversion	Amount realisable	Amount realised	Balance to be realised	Amount deposited in CAMPA Fund	Amount to be deposited in CAMPA Fund
	(in hectares)	(Rupees in crore)				
Prior to 15.11.2000	NA	NA	45.82	NA	Nil	45.82
15.11.2000 to 31.10.2002	NA	NA	6.83	NA	Nil	6.83
1.11.2002 to 31.3.2009	8749.13	993.84	955.40	38.44	880.52	74.88
<b>Total</b>				<b>38.44</b>		<b>127.53</b>

*Source: Department of Forest and Environment, Jharkhand*

Reasons for non-realisation of Rs 38.44 crore and non-remittance of Rs 127.53 crore were not furnished by the department, though called for by Audit.

Irregularities due to non-adherence to Government orders of November 1968, the Forest (Conservation) Act, 1980 and the guidelines of CAMPA, noticed in the test-checked divisions, are discussed in the succeeding paragraphs.

#### 1.1.9.2 Unauthorised utilisation of forest land for non-forest purposes

The Forest and Environment Department, Government of Bihar issued (November 1968) instructions for realisation of royalty and compensation at prescribed rates along with the price of land, as determined by the Revenue Department, in cases of transfer of forest land. Further, cases in which specific

<sup>35</sup> Government of India accords approval for diversion of forest land for non-forest purposes in two stages *i.e.* In-principle approval and Final approval.

<sup>36</sup> The present value of the land transferred.

<sup>37</sup> Catchment Area Treatment Plan: A plan for soil conservation measures in the catchment areas of an irrigation project to check soil erosion by taking up plantations and other measures.

Unauthorised use of 4,655.82 hectares of forest land for non-forest purposes resulted in loss of Rs 368.41 crore

orders for diversion of forest land were not issued by the State Government prior to October 1980, were also required to be referred to the GOI for approval.

In three<sup>38</sup> out of 22 test-checked territorial forest divisions, 4,655.82 hectares of forest land was taken up by the Irrigation Department and M/s Eastern Coalfields Ltd. between 1972 and 2003 for non-forest purposes without obtaining prior approval of GOI. The proposals for approval were either not submitted by the user agencies or submitted incomplete, with the result that 4,655.82 hectares of forest land was being utilised by the Irrigation Department and M/s Eastern Coalfields Ltd. without due authorisation. In the absence of GOI's approval, demands for dues could not be raised against the users of the said land, resulting in non-realisation of Rs 368.41 crore (NPV: Rs 334.83 crore, CA: Rs 31.41 crore and Penal CA: Rs 2.17 crore).

The Government, while accepting the audit observation, stated (November 2009) that demands would be raised after approval was accorded by GOI.

### 1.1.9.3 Non/short raising/realisation of Net Present Value

Under the provisions of the Forest (Conservation) Act, 1980, a Supreme Court judgement of October 2002 and orders issued by CAMPA in October 2006, NPV was to be determined between Rs 5.80 lakh and Rs 9.20 lakh per hectare depending upon the quality of forest, density of vegetation and types of species in the areas under diversion. These rates were applicable in cases where final approval<sup>39</sup> was granted on or after 30 October 2002, irrespective of the date of in-principle approval<sup>40</sup>. Accordingly, PCCF, Jharkhand worked out (February 2006) a formula<sup>41</sup> for calculating NPV which was prevalent as of March 2008. However, in the light of the Supreme Court's orders of March 2008, the rates were revised and fixed (varying from Rs 4.38 lakh to Rs 10.43 lakh per hectare) after classifying the forest land into six categories<sup>42</sup>. Irregularities noticed in respect of NPV are discussed in succeeding paragraphs.

- In two (Conservator of Forests, Core Area<sup>43</sup>, Daltonganj and Forest

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<sup>38</sup> Deoghar, Palamu (Tiger Project) and Simdega.

<sup>39</sup> Final approval is granted after fulfillment of the conditions stipulated under in-principle approval.

<sup>40</sup> In-principle approval is granted with imposition of certain conditions which includes realisation of NPV, cost of CA etc.

<sup>41</sup> NPV (per hectare) in Rupees = 5.8 + 1/3 [Quality (9.2-5.8) + Density (9.2-5.8) + Species (9.2-5.8)]. **Quality-** (a) Blank area with nil rootstock or exposed morrum/gravel: value-zero (b) Area supporting high forest: value-1 (c) Area other than falling in category (a) and (b): value- 0.5. **Density-** As per field inspection varying from 0 to 1. **Species standing on the land-** (a) For natural species-1 (b) For plantations- 0.5.

<sup>42</sup> **Eco-Class I:** Consisting of tropical wet evergreen forests, tropical semi-evergreen forests and tropical moist deciduous forests, **Eco-Class II:** Consisting of littoral and swamp forests, **Eco-Class III:** Consisting of tropical dry deciduous forests, **Eco-Class IV:** Consisting of tropical thorn forests and tropical dry evergreen forests, **Eco-Class V:** Consisting of sub-tropical broad-leaved hill forests, sub-tropical pine forests and sub-tropical dry evergreen forests and **Eco-Class VI:** Consisting of montane wet temperate forests, Himalayan moist temperate forests, Himalayan dry temperate forests, sub-Alpine forest, moist Alpine and dry Alpine scrub.

<sup>43</sup> Inviolable area in the Palamu tiger reserve for tiger habitat.

<p><b>Demands for NPV of Rs 61 crore were not raised even after the lapse of 10 to 11 years</b></p>	<p>Division, Gumla) out of 22 test-checked territorial forest divisions, GOI accorded in-principle/final approval<sup>44</sup> (between March 1997 and December 1999) for diversion of 883.30 hectares of forest land to three user agencies. However, even after lapse of 10 to 11 years, demands for NPV had not been raised. Thus, Rs 61 crore, due to the Government, remained unrealised.</p> <p>The Government, in its reply, stated (November 2009) that action was being taken for realisation of the dues in Gumla. However, no reply was furnished in the case of Core Area, Daltonganj.</p>
<p><b>Though demands were raised, Rs 1.33 crore for NPV and cost of CA remained unrealised</b></p>	<ul style="list-style-type: none"> <li>• In three<sup>45</sup> out of 22 test-checked territorial forest divisions, 173.41 hectares of forest land was diverted (March 2006 and February 2008) to three user agencies for non-forest purposes. Demands for Rs 2.27 crore on account of NPV and the cost of CA were raised between March 2006 and October 2008. However, Rs 1.33 crore remained unrealised as of March 2009.</li> </ul> <p>The Government, while accepting the audit observation, stated (November 2009) that Rs 75.64 lakh, pertaining to the Saraikela division, had since been realised and deposited into the CAMPA Fund while in other two cases, action was being taken for realisation.</p>
<p><b>Under-assessment of forest area and incorrect computation resulted in short-raising of demand by Rs 2.81 crore</b></p>	<ul style="list-style-type: none"> <li>• In five out of 22 test-checked territorial forest divisions, GOI accorded in-principle/final approval (between August 1998 and November 2008) for diversion of 264.186 hectares of forest land to six user agencies for non-forest purposes and demands of Rs 14.28 crore were raised between January 1999 and November 2008. Audit scrutiny revealed that under-assessment of forest areas and incorrect computations resulted in short-raising of demands by Rs 2.81 crore (based on the formula laid down by the PCCF) (<i>Appendix-1.7</i>).</li> </ul> <p>The Government, while accepting the audit observation, stated (November 2009) that revised demands had been issued to user agencies for realisation.</p>
<p><b>Though Rs 183.30 crore was realised, no scheme for compensatory afforestation had been taken up by the department</b></p>	<p><b>1.1.9.4 Compensatory afforestation</b></p> <p>In order to mitigate the adverse effects of diversion of forest land, the Central Government, while granting approvals under the Forest (Conservation) Act, 1980, stipulated carrying out of compensatory afforestation over equivalent land made available by the user agency or double the area of degraded forest land in case land was not made available by the user agency. The cost of such CA was to be borne by the user agency.</p> <p>Information furnished by PCCF, Jharkhand revealed that Rs 183.30 crore<sup>46</sup> was realised (between October 2002 and March 2009) on account of</p>

<sup>44</sup> In-principle approval: Upper Sankh Reservoir Scheme and Dhansing Toli Irrigation Scheme (Gumla Forest Division). Final approval: Horilong Underground Project (Core Area, Daltonganj).

<sup>45</sup> Gumla, Ranchi West and Saraikela.

<sup>46</sup> CA: Rs 65.81 crore, Penal CA: Rs 64.85 crore, safety zone plantations: Rs 5.11 crore, fencing and regeneration of safety zone: Rs 5.48 crore, wildlife: Rs 30.63 crore, strip plantations: Rs 9.18 crore and soil conservation: Rs 2.24 crore.

compensatory afforestation for diversion of 8,749.13<sup>47</sup> hectares of forest land (127 projects) but as of March 2009, not a single scheme for CA had been taken up by the department. No reply was received in this regard.

**Demand for cost of Compensatory Afforestation for Rs 1.84 crore was not raised even after lapse of 13 to 52 months**

**1.1.9.5 Non-raising of demand for compensatory afforestation**

Audit scrutiny revealed that in three<sup>48</sup> out of 22 test-checked territorial forest divisions, GOI accorded in-principle approval (between November 2004 and February 2008) for diversion of 144.152 hectares of forest land for non-forest purposes to three user agencies. The approval stipulated CA in 142.632 hectares of land and linear plantations in 15.21 km. However, demands for cost of CA for Rs 1.84 crore were not raised even after the lapse of 13 to 52 months.

The Government, in its reply, stated (November 2009) that Rs 1.22 crore pertaining to two cases (Godda and Saraikela) had since been realised.

**1.1.9.6 Loss of interest due to non-adherence to GOI's guidelines**

The Ministry of Environment and Forest (MoEF) issued (March 2004) a clarification that funds received from user agencies against CA, NPV, CAT plan etc. were to be kept as fixed deposits in nationalised banks in the name of the concerned Divisional Forest Officers or the Nodal Officers till CAMPA was constituted. Further, in May 2006, MoEF directed that the amounts lying with the DFOs/Nodal Officers should be deposited in the CAMPA Fund in a current account of Corporation Bank.

**Deposit of Rs 3.05 crore into the treasuries even after GOI's clarification resulted in loss of interest of Rs 3.98 lakh**

In two (Dhalbhum and Porahat) out of 22 test-checked territorial forest divisions, Rs 3.05 crore realised between March 1999 and March 2004 from four user agencies on account of NPV and CA was kept (April 2004) in the treasuries even after GOI's clarification. This resulted in loss of interest of Rs 3.98 lakh (calculated at the rate of six *per cent* for the period from April 2004 to May 2006).

The Government, while accepting the audit observation, stated (November 2009) that a proposal for withdrawal of the funds from the treasuries was under process.

**1.1.9.7 Non-raising of demand**

**Demand of Rs 129.04 crore could not be raised due to non-finalisation of Catchment Area Treatment plan**

While approving the proposals for transfer of forest land for non-forest purposes, GOI, apart from realisation of NPV/cost of CA, also imposes conditions for realisation of cost of Catchment Area Treatment (CAT), cess, canal bank plantations, roadside (avenue) plantations *etc.* from user agencies. However, in Saraikela forest division, GOI, while granting (August 2006) in-principle approval for diversion of 1,655.55 hectares of forest land to the Water Resources Department (WRD), Jharkhand for the Subernarekha Multipurpose Project, directed the State Government/user agency to submit a CAT plan. A CAT plan for Rs 129.04 crore was prepared by WRD and submitted to the DoFE in July 2007 for finalisation at their end. However,

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<sup>47</sup> Information regarding stipulated area on which CA was to be carried out was not furnished by the department. However, only the minimum area *i.e.*, total land diverted, had been taken into account.

<sup>48</sup> Bokaro, Godda and Saraikela.

even after the lapse of more than two years, the CAT plan was not finalised for onward submission to GOI for approval. Thus, due to non-finalisation of the CAT plan by DoFE, Government of Jharkhand, the demand for Rs 129.04 crore could not be raised.

**Demand for Rs 5.08 crore for plantations was not raised though stipulated by GOI**

The above approval of GOI also stipulated realisation of cost of plantations along the reservoir area and canal banks (656.82 hectares). However, even after the lapse of 34 months, no demand was raised for Rs 5.08 crore (calculated for QGS plantations at the rate of Rs 77,374 per hectare).

The Government, in its reply, stated (November 2009) that GOI, while granting Stage-1 approval, had only directed the department to submit the CAT plan and not to realise the cost of CAT while in case of the canal bank plantations, the excess amount (Rs 17.84 crore) deposited against NPV by the user agency was to be utilised for canal bank plantations. The reply is not acceptable as no reasons were given for the failure to submit the CAT plan to GOI for approval because of which the demand could not be raised.

### 1.1.10 Internal control

Every department is required to institute appropriate internal controls for its efficient and effective functioning by ensuring the enforcement of laws, rules and departmental instructions. Internal control helps in creation of reliable financial and management information systems for prompt and efficient services and adequate safeguards against deviations from organisational goals and objectives. The succeeding paragraphs bring out cases of non-observance of the prescribed internal controls.

#### 1.1.10.1 Non-maintenance of basic records

**Basic records like plantations journals, pit registers, quarterly reports etc. were not maintained**

- For proper verification of afforested areas and recording of the survival rates of the plants by the higher authorities, the department issued vague instructions in November 2000 to maintain plantations journals, pit registers *etc.* in range offices and details of plantations in the divisions. However, in seven test-checked divisions<sup>49</sup>, plantations details were not being maintained.
- According to departmental instructions issued in January 2008, quarterly reports regarding monitoring of the stipulated conditions<sup>50</sup> in respect of approvals made by GOI under the Forest (Conservation) Act, 1980 were to be prepared by the divisions for onward submission to the higher authorities. However, no such quarterly reports had been prepared in seven test-checked divisions<sup>51</sup>.

#### 1.1.10.2 Internal audit and vigilance mechanism

**During 2004-09, only seven offices were audited by the Finance Department. The Vigilance Section remained non-functional**

The department did not have an internal audit wing of its own. The internal audit wing of the Finance Department was responsible for internal audit of DoF&E. It was, however, noticed that no targets were fixed for audit of DoF&E and only seven out of a total of 112 offices were audited by the

<sup>49</sup> Bokaro, Dhanbad, Field Director, Project Tiger Circle, Palamu and Deoghar, Giridih, Gumla and Khunti.

<sup>50</sup> Conditions stipulated by GOI for realisation of NPV, cost of CA/ penal CA etc.

<sup>51</sup> Bokaro, Field Director, Project Tiger Circle, Palamu and Deoghar, Khunti, Project Area, Palamu and Godda and Simdega Core Area.

Finance Department during 2004-09. This indicated an ineffective internal audit mechanism in the department. Further, a Vigilance Section existed under the direct charge of the PCCF which was to look after personal complaints made against departmental officers. Scrutiny revealed that no work had been entrusted to this section, which remained non-functional during the period under review.

#### **1.1.10.3 Monitoring**

Monitoring by higher officials of the various schemes of afforestation and other allied activities undertaken by the divisions is essential for proper execution of plantations schemes and achievement of desired results. Non-maintenance of the required records, failure to monitor plantations and upkeep activities and inadequate functioning of internal audit and vigilance wings in the department indicated that the monitoring system in the department was not satisfactory.

#### **1.1.11 Conclusion**

Implementation of various afforestation schemes/activities met with limited success in the State due to non-preparation of Working Plans, non-adherence to the provisions made under Financial Rules, irregularities in implementation of afforestation schemes, improper selection of sites, plantations of banned species and high mortality rates in the plantations. The available funds were not being fully utilised and the supplementary grants remained totally unutilised. The fuelwood and fodder plantations scheme was a picture of neglect as no plantations was undertaken during 2004-05 and 2005-06. While a sizeable amount of forest land was transferred for non-forest purposes, there was no concerted effort to compensate the losses through formulation and implementation of compensatory afforestation schemes for which funds were available. Net Present Value and cost of compensatory afforestation were not always raised and realised. The internal control system and monitoring were not effective.

#### **1.1.12 Recommendations**

The Government may consider the following:

- Timely preparation, approval and adherence to Working Plans along with demarcation of forest land after conducting proper surveys;
- Preparation of budget estimates as per the provisions of the Budget Manual after due assessment of the requirement of afforestation activities and ensuring the utilisation of funds;
- Preparation of need-based and time-bound programmes for afforestation with particular emphasis on fuelwood and fodder plantations and silvicultural operations;
- Preparation of a proper data base for CAMPA Fund management, preparation of compensatory afforestation schemes and development of infrastructure to compensate for the loss of forest cover due to diversion of forest land; and
- Strengthening internal controls and the monitoring mechanism.

## ENERGY DEPARTMENT

### 1.4 Working of Jharkhand Renewable Energy Development Agency

#### 1.4.1 Introduction

The Jharkhand Renewable Energy Development Agency (JREDA) was set up in February 2001 under the Energy Department, Government of Jharkhand to explore, exploit, promote and popularise new and renewable energy sources through planning, investigation, research and development, field testing and demonstration. The objective of JREDA was to encourage the use of renewable energy sources by offering incentive, to users in the form of subsidy.

Exploring of renewable sources of energy in the State assumes importance as only 10 and 24.3 *per cent* of rural and other households respectively are electrified in the State<sup>139</sup>. Besides, villages are spread far and wide and fall in hilly and inaccessible regions where non-conventional sources of energy emerge as a viable alternative to meet the energy requirements.

For promoting the use of non-conventional and renewable energy, Government of India set up the Department of Non-Conventional Sources of Energy in 1982 which was subsequently made the Ministry of New and Renewable Energy (MNRE) in October 2006. MNRE implements its programmes through various State agencies. Out of the various programmes of MNRE, JREDA was implementing the programmes like Solar Photovoltaic, Remote Village Electrification, Solar Thermal, Biogas etc.

A review of the working of JREDA for the period 2002-09, was conducted during January to April 2008 and February 2009 through test check of its records to examine its performance and financial management. In order to verify certain aspects of the working of JREDA, joint field verification in seven villages of two<sup>140</sup> districts was also carried out.

#### 1.4.2 Organisational Structure

JREDA was created with a 13 member Managing Committee (the Committee) comprising of the Energy Secretary as ex-officio Chairman, Secretaries of six departments<sup>141</sup>, heads of four institutions<sup>142</sup> and two internal members<sup>143</sup>. The Committee had the power to approve the policies, programmes, budgets, annual reports etc.

<sup>139</sup> Economic Survey of Government of Jharkhand for 2007-08.

<sup>140</sup> Dumka: Fulsari, Paharidih and West Singhbhum: Baida, Dhubila, Jatarma, Nilchakrapada and Tunga.

<sup>141</sup> Agriculture, Finance, Forest & Environment, Industry, Planning and Rural Development Departments.

<sup>142</sup> 1. Chairman, Jharkhand State Electricity Board, 2. Director, Mines, Jharkhand, Ranchi, 3. Director, Birla Institute of Technology, Mesra, Ranchi and 4. Principal, National Institute of Technology, Jamshedpur.

<sup>143</sup> Director and Project Director.

### 1.4.3 Planning

JREDA did not prepare any long term Plan and Annual Action Plans were prepared on ad hoc basis

Though the JREDA was committed to the objective of meeting the energy requirements of the State for domestic and irrigation use by generating additional power through the use of new and renewable sources of energy, audit scrutiny revealed that JREDA had not prepared any long term plan to explore, exploit and promote new and renewable energy sources. Annual Action Plans were prepared for promoting and popularising solar and bioenergy sources through installation/sale of solar photovoltaic systems, solar water heating systems, biogas plants and improved ovens but these were framed on ad hoc basis only. There was no confirmed basis for fixation of targets and there were no targets for previous years. Further, Annual Action Plans were not prepared for geothermal, wind, biomass and hydel energy.

### 1.4.4 Financial management

JREDA's financial resources and its utilisation during 2002-09 were as shown in Table 19 below:

**Table 19: Funds received, expenditure and savings**

*(Rupees in crore)*

Sl. No.	Year	Funds received			Expenditure			Savings			Saving (In per cent)
		GOI	State	Total	GOI	State	Total	GOI	State	Total	
1	02-03	0.30	3.00	3.30	0.23	1.54	1.77	0.07	1.46	1.53	46.36
2	03-04	6.57	6.10	12.67	5.74	1.72	7.46	0.83	4.38	5.21	41.12
3	04-05	6.13	5.17	11.30	5.26	3.18	8.44	0.87	1.99	2.86	25.30
4	05-06	5.73	28.73	34.46	5.59	23.18	28.77	0.14	5.55	5.69	16.51
5	06-07	9.40	41.04	50.44	9.40	27.09	36.49	0.00	13.95	13.95	27.65
6	07-08	10.61	40.00	50.61	7.32	36.49	43.81	3.29	3.51	6.80	13.44
7	08-09	NIL									
<b>Total</b>		<b>38.74</b>	<b>124.04</b>	<b>162.78</b>	<b>33.54</b>	<b>93.20</b>	<b>126.74</b>	<b>5.20</b>	<b>30.84</b>	<b>36.04</b>	<b>22.14</b>

Source: Financial statement made available by JREDA

Audit noticed the following:

Though JREDA was to arrange its resources in the form of loans, subsidies, grants-in-aid and financial assistance from Government, semi-Government organisations and other institutions to finance its activities, no initiative to mobilise additional resources from non-governmental sources was taken by it, leaving it totally dependent on funds received from Government of India and the State Government.

Instances of financial irregularities, noticed in audit, are discussed in the succeeding paragraphs.

- As stated, Rs 36.04 crore (22.14 per cent) was not utilised.
- Para 19 of the Articles of Association of JREDA envisaged that the Controller of Finance would negotiate cheques and other such instruments jointly with the Director. However, no Controller of Finance was appointed in the JREDA and expenditure of Rs 126.74 crore was incurred during 2002-09.
- Rupees 10.60 crore, deposited (November 2007) in a Personal Ledger Account (PLA) of the Director, JREDA lapsed on 1 April 2008 due to non-renewal of PLA. Further scrutiny revealed that JREDA created an

JREDA spent money without appointing a Controller of Finance

interest liability of Rs 5.14 crore up to March 2009, as this fund was sanctioned in March 2002 by GOI as a loan at a compound rate of interest of 13 *per cent* per annum payable in 10 instalments, besides blocking the fund for more than two years.

**Defalcation of Rs 21.18 lakh, paid for works not supported by documents, could not be ruled out**

- MNRE provided (April 2004) Rs 1.38 crore for electrification (through solar photovoltaic systems) of 88 schools and hostels for Schedule Castes. An equivalent amount was to be provided by the State. However, as the State could not provide its share on time, JREDA returned (July 2007) Rs 1.54 crore, with the interest earned, to MNRE. Thus, the purpose for which GOI sanctioned the fund *i.e.* benefit of Scheduled Caste students, was defeated.
- During 2003-06, Rs 21.18 lakh was paid to executing agencies for printing of pamphlets/leaflets, publication of tender notices, press notes etc. but evidence of execution of works like stock entries and paper cuttings of tender notices, press notes etc. were not on record. Further, payment of Rs 7.70 lakh in six cases was made without the required sanction of the Director. Thus, the possibility of defalcation of Rs 21.18 lakh could not be ruled out.
- Perusal of the Chartered Accountant's report revealed that during 2005-06, 650 Solar Street Lighting Systems (SLS) and 221 Domestic Home Lighting Systems (DLS) were sold for Rs 43.72 lakh by the then storekeeper of the JREDA without the required issue order. Out of Rs 43.72 lakh, only Rs 12.58 lakh was taken into the account while Rs 31.14 lakh was defalcated. No action was initiated by JREDA against the storekeeper as of March 2009.
- During 2005-06, the stock of JREDA was short by 73 DLS and 23 SLS worth Rs 7.47 lakh. No responsibility was fixed for this shortage/pilferage as of March 2009.

**Annual accounts and reports were neither approved by the Managing Committee nor submitted to the Government**

#### **1.4.4.1 Annual Accounts and Reports**

According to paras 12, 22 and 23 of the Articles of Association, the Annual Accounts of JREDA were to be audited by a Chartered Accountant followed by supplementary audit by the Comptroller and Auditor General of India or his authorised Chartered Accountant. Annual Accounts and Reports, duly approved by the Managing Committee were to be submitted to the State Government every year by the end of June.

Though, the accounts for the period 2002-06 were prepared by Chartered Accountants, approval of the Managing Committee and submission to the Government was not ensured. This resulted in denying the Government access to the accounts, an important management aid to control and monitor the performance of JREDA. No accounts had been prepared thereafter.

#### **1.4.5. Programme implementation**

The State has immense scope for meeting its energy needs from sources like biomass, solar, geothermal, wind, water etc. due to large scale availability of barren and unutilised land, numerous waterfalls, presence of geothermal sites (60 out of 340 sites in India), abundant sunlight, water and wind. Although in

**JREDA has not taken up any projects on new and renewable sources of energy**

its ninth year of establishment<sup>144</sup>, JREDA is yet to take up on geothermal, wind, hydel and biomass projects. Out of the various programmes<sup>145</sup> of MNRE, JREDA was mainly implementing solar photovoltaic, solar water heating systems, biogas plants and improved oven programmes even though it was the nodal agency of MNRE in the State.

#### **1.4.5.1 Remote Village Electrification Programme**

**The shortfall in achievement of targets was 99.76 per cent in 2006-07**

The programme aimed to electrify villages not taken up for electrification by the Jharkhand State Electricity Board (JSEB). The entire expenditure for the programme was borne by GOI in the form of subsidy.

JREDA, on receipt of the list of such villages from JSEB, was to install solar photovoltaic systems like Domestic Home Lighting Systems (DLS) and Solar Street Lighting Systems (SLS) at selected sites in villages after carrying out field surveys. During 2004-09, the physical targets and achievements under the programme were as given in **Appendix-1.34**.

JREDA did not fix any targets for 2004-05 and 2007-08 for which there was no reason on record. The shortfall in achievement of target was 99.76 per cent during 2006-07. In 2008-09, JREDA did not undertake any activity as funds were not released by GOI. Absence of targets/activities during 2004-05 and 2007-08 and major shortfalls, indicated an unplanned and inadequate implementation of the programme.

Deficiencies noticed in programme implementation are discussed below:

**Installation of 493 DLSs at Rs 73.90 lakh was doubtful**

- During 2004-06, Central Electronics Limited was paid Rs 5.60 crore for supply and installation of 3,730 DLSs. However, as per the entries in invoice, supply was of only 3,237 DLSs. Further, transporters' challans, consignees' notes and receipts of consignees were not available on record. Thus, the possibility of non-installation of 493 systems worth Rs 73.90 lakh could not be ruled out.
- Rajasthan Electronics and Instruments Limited was paid (December 2004) Rs 19.83 lakh for supply and installation of 10 SLSs and 204 DLSs on submission of a photocopy of an invoice (No. 4418 dated 25.10.2004) by overwriting the details. Audit scrutiny revealed that Rs 1.60 lakh had already been paid (November 2004) on the original invoice (No.4418 dated 25.10.2004) for supply and installation of eight SLSs. (**Appendix-1.35** and **1.36**) Thus, the installation of 10 SLSs and 204 DLSs was doubtful.
- The inventory of 67 out of 103 test-checked villages of nine districts<sup>146</sup> revealed that 842 out of 9,935 DLS (stated to be installed during 2002-04) were recorded without modules and battery numbers and 1,504 systems were recorded as not available/not received. Thus, the possibility of

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<sup>144</sup> Earlier Bihar Renewable Energy Development Agency was responsible for the area under Jharkhand of undivided Bihar.

<sup>145</sup> Bioenergy (Biogas plants, Energy from biowastes, Biomass energy, Improved Ovens), Geo-thermal Energy, Hydro Energy (Small/mini/micro Hydel projects), Solar Energy (Solar Thermal and Solar Photovoltaic Programmes) Wind Energy (Wind Mills and Pumps, Aero Generators), etc.

<sup>146</sup> Bokaro, Deoghar, Dumka, Garhwa, Giridih, Godda, Palamu, Ranchi and West Singhbhum.

non-installation of 2,346 DLS (23.61 *per cent*) valuing Rs 2.91 crore could not be ruled out.

- As per the provision contained in para 2.2 of the Articles of Association, JREDA was required to plan, promote, undertake, co-ordinate, finance and execute projects which permitted field applications of non-conventional energy. Audit scrutiny revealed that JREDA identified 3,011 villages with population of less than 100 only in 2008-09 where electrification through non-conventional sources only was viable. However, no plan for electrification of these villages was prepared by JREDA as of March 2009. These villages were also not taken up by Jharkhand State Electricity Board (JSEB) under any ongoing rural electrification programme.

#### 1.4.5.2 Solar Photovoltaic Programme

**Shortfalls in achievement up to 92 per cent reflected the inability of the JREDA to extend the reach of the programme**

Under this programme, solar photovoltaic systems like solar lanterns (SL), DLS and SLS were sold to beneficiaries at subsidised rates (between Rs 1,000 and Rs 21,000 per system during 2002-09). Physical targets and achievements of the programme during 2002-09 are as shown in **Appendix-1.37**.

It can be seen that there were shortfalls of 79 *per cent* (2002-03), 92 *per cent* (2003-04), 63 *per cent* (2004-05) and 25 *per cent* (2005-06). Due to non-release of funds by GOI there was no activity during 2008-09. The shortfall reflected the failure of the JREDA to reach the targeted villages/people.

Deficiencies in programme implementation are discussed in the succeeding paragraphs.

**The sale of solar lanterns valuing Rs 1.53 crore to beneficiaries was doubtful**

- JREDA paid (December 2005) Rs 1.53 crore to M/s Ritika Systems Private Limited for supply (October to December 2005) of 4,000 SL without obtaining documents (transporters' challans and consignees' notes) as proof of supply. Stock entries were also not authenticated by the Project Officer, as stipulated. Of these, 3,800 systems were shown as issued (December 2005) to three districts<sup>147</sup> and 200 systems as sold by the JREDA. However, acknowledgements of the concerned district authorities/issue orders and acknowledgement of beneficiaries were not available on record. Further, a supply order was placed on 16 September 2005 while the agreement with the supplier was entered into on 4 October 2005 on non-judicial stamp paper dated 6 October 2005.
- District authorities are required to send ration cards/voter identity cards of the beneficiaries to the JREDA in support of sale of systems. Further, MNRE prohibits issue of more than one system to an individual/private body. However, against the stated sale of 45,229 SL, 556 DLS and 1,056 SLS to beneficiaries of 14 districts<sup>148</sup> during 2005-06, evidence in support of sale of 22,681 SL, 427 DLS and 1,043 SLS was not available on record. Further, in contravention of MNRE's guidelines, 1,619 SL were issued in bulk to seven Village Energy Committees<sup>149</sup> (VEC) and three individuals during 2004-05. The details of distribution of these systems and receipts of

<sup>147</sup> Godda, Jamtara and Pakur.

<sup>148</sup> Chatra, Deoghar, Dhanbad, Giridhi, Godda, Gumla, Hazaribag, Jamshedpur, Latehar, Pakur, Palamu, Sahebganj, Saraikela-Kharsawan and West Singhbhum.

<sup>149</sup> A committee of beneficiaries (villagers) for security, operation etc. of installed systems.

beneficiaries were also not obtained. Thus, sale of 24,300 SL, 427 DLS and 1,043 SLS valuing Rs 13.21 crore at subsidised rates to the intended beneficiaries was doubtful and the possibility of sale of the systems in the open market could not be ruled out.

- During 2002-06, 15,174 SL, 1,609 DLS and 782 SLS worth Rs 9.07 crore were shown as sold to beneficiaries by the JREDA. However, issue orders and acknowledgements of the beneficiaries were not on record.
- As per MNRE guidelines, manufacturers of at least one component of solar systems were eligible for supply of solar systems. During 2005-06, though no documentary evidence (transporters' challans, consignees' notes and receipts of consignees) were submitted by the suppliers, the JREDA paid Rs 11.35 crore to six suppliers dealing in confectioneries, cosmetics, electrical cable and wires, steel and aluminum sheets, glass works etc for supply of 20,000 SL and 1,250 SLS, though they were not eligible.
- During 2005-06, the JREDA paid Rs 76.50 lakh for supply of 2,000 SLs against two invoices bearing handwritten numbers and without stamp/seal of the authorised signatory.
- An agency was paid (January 2006) Rs 19.13 lakh for supply of 500 SL to JREDA. However, the challan submitted (16 January 2006) with the invoice mentioned supply of only 400 SL. Thus, the stated supply of 100 SLs worth Rs 3.83 lakh was fictitious.
- Seven<sup>150</sup> suppliers were paid (2002-06) Rs 1.80 crore for supply of 2,759 SL, 691 DLS and one SLS, which were not recorded in the stock register of the JREDA. Similarly, M/s SG Enterprises was paid (December 2005) Rs 88.80 lakh for supply of 300 SLS to Aditya Solar Shop (GOI approved retail outlet) but no entry on this account was available in the stock register of Aditya Solar shop.
- The module and battery numbers of systems received or sold and details of beneficiaries though required were not recorded in the stock register of Aditya Solar Shop. Further, the owner of Aditya Solar Shop was also a supplier of solar systems to the JREDA. Given the fact that the supplier was also the owner of a retail outlet, misappropriation of stores, especially the sales not supported by necessary documents, could not be ruled out.

#### **1.4.5.3 Solar Thermal Programme**

JREDA took up the installation of solar water heating systems, offering a subsidy of Rs 50 per litre<sup>151</sup> to beneficiaries. Physical targets and achievements of the programme during 2002-09 were as shown in **Appendix-1.38**.

The shortfall was 83 per cent in 2005-06, 76 per cent in 2006-07 and 27 per cent in 2008-09. Due to non-achievement of targets fixed for 2005-07 which were higher as compared to the previous years and were fixed without assessing the actual requirements, the targets were reduced during 2007-09.

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<sup>150</sup> M/s Kamla, Mellinium Enterprises, PPS Enviro, REIL, Sungrace Enterprises, SG Enterprises, SEL

<sup>151</sup> Subsidy decided on the basis of the volume of the system measured in litre.

**Payment of Rs 13.91 lakh was made without sanction/work order and certificate of installation**

Audit scrutiny revealed that subsidy of Rs 13.91 lakh was paid to a firm for installing solar water heating systems of the capacity of heating 27,825 litres of water in houses of 31 beneficiaries during 2004-09. However, in 21 cases, subsidy of Rs 10.01 lakh for 20,025 litres was paid without sanction/work order and in 10 cases, subsidy of Rs 3.90 lakh for 7,800 litres was paid without obtaining certificates of installation from beneficiaries, thus indicating the possibility of misappropriation of subsidy.

#### **1.4.5.4 Biogas Programme**

**JREDA could not utilise the biogas potential in an agrarian State**

JREDA was to implement a biogas programme for the rural populace by releasing subsidy of Rs 4,000 up to 2005-06 and Rs 5,700 during 2006-07 per biogas plants. Physical targets and achievements of the programme during 2002-09 were as shown in *Appendix-1.39*.

Though, the shortfall in achievements was 94 *per cent* (2002-03), 96 *per cent* (2003-04), 90 *per cent* (2004-05) and 35 *per cent* (2005-06), JREDA did not make any effort to popularise the potential of biogas in a predominantly agrarian State where the second most important source of livelihood was cattle raising.

#### **1.4.5.5 Improved ovens (Unnat chullahs)**

**JREDA made negligible efforts towards providing smokeless *chullahs* to the people of remote villages**

*Unnat chullahs*<sup>152</sup> were designed with the objective of offering pollution-free environment, reducing cooking time, reducing cutting trees for fuelwood and reducing human drudgery in villages. The physical targets and achievements of the programme during 2002-09 were as shown in *Appendix- 1.40*.

The shortfall was 100 *per cent* in 2002-04, 45 *per cent* in 2004-05 and 85 *per cent* in 2008-09. Further, the targets were drastically reduced from 2003-04 onwards as compared to the targets for 2002-03, without assigning any reason. The JREDA failed to achieve the objective of providing pollution-free and convenient cooking technology to the poor.

#### **1.4.5.6 Hydel energy**

**JREDA failed to construct hydel projects despite availability of resources and funds**

The significant number of waterfalls in the State offers immense potential for small and mini hydel power projects at about 83 sites with estimated capacity of 1.34 lakh kilo watts<sup>153</sup>.

Audit scrutiny revealed that in undivided Bihar, 14 mini/micro hydel power projects<sup>154</sup>, within the geographical area of Jharkhand, were taken up between 1982-83 and 2000-01 by the Bihar State Hydroelectric Power Corporation (BHPC). All these projects were incomplete as of March 2009.

Further, despite availability of other suitable sites in the State, JREDA was still to take up a new hydel power project.

<sup>152</sup> An oven in which biomass waste is used as fuel in place of firewood and it does not emit smoke.

<sup>153</sup> Economic Survey of Jharkhand for 2007-08.

<sup>154</sup> Chandil, Gautamghagh (portable micro), Jalimghagh (portable micro), Jalimghagh (demo project), Kanhar, Lowerghaghri, Mandal, Nindighagh (portable micro), Nindighagh (demo project), Netarhat, Sadni, Shankh, Tilaiya Ghaghar and Tenu-Bokaro.

#### 1.4.6 Research and Development

**JREDA failed to undertake research and development work in the field of renewable technology**

Although JREDA was required to sponsor and co-ordinate research and development, establish research laboratories and experimental workshops, standardise design and provide technical know-how to users and manufacture systems and devices of new and renewable energy sources, it did not undertake any of these activities.

Audit scrutiny revealed that JREDA did not make any provision in its annual plans for research and development. Further, it did not undertake any research and development programme in the field of renewable technology or establish laboratory and experimental workshops to promote advances in renewable technology suitable for the State. Its activities were confined to purchase, sale and installation of systems available in the market, with the result that a core object for setting up of JREDA was not achieved.

#### 1.4.7 Manpower management

**JREDA did not plan for its expansion though its scope of work increased manifold over the last eight years**

- As per para 2.15 of the Articles of Association, JREDA was to be initially manned by officials on deputation. With the expansion of scope of work, it was to appoint officials and set up regional offices within the State.

Audit scrutiny revealed that the Committee approved (February 2003) the creation of 35 regular posts for the functioning of JREDA. However, these posts were not sanctioned by the Finance Department as of March 2009 and JREDA was functioning with only 23 officials<sup>155</sup>, all on deputation. Further, JREDA did not plan for its expansion though its scope of work increased manifold over the last eight years. The possibility of shortage of manpower adversely affecting the performance of JREDA could not be ruled out.

- As per para 19.1 of the Articles of Association, the Director as the chief executive officer was to exercise general control over administration. An officer of the Indian Administrative Service, not below the rank of Deputy Development Commissioner or any technical officer of repute, having a minimum experience of five years in the field of renewable energy, was to be appointed as the Director. Audit scrutiny revealed that none of the Directors appointed during April 2004 to March 2009 fulfilled the prescribed criteria.

**No training was imparted or advance studies arranged for achievement of the objectives of JREDA**

- Training of officials and staff, granting of aid and scholarship to officers for advance studies and training workshops were integral to the objects of JREDA.

Audit scrutiny revealed that neither was any provision for funds were made nor were schedules for training and advance studies drawn up. In the absence of training, the JREDA could not augment its resource/skill base which would have helped it to popularise the use of renewable energy in the State.

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<sup>155</sup> Two Project Officers, one Accounts Assistant, one Administrative Officer and 19 Technicians.

### 1.4.8 Other interesting issues

**Detailed Project Reports of villages, already prepared under the electrification programme of JSEB, could not be used and expenditure on them was rendered wasteful**

**Installed systems were not maintained even after payment of Rs 11.70 lakh as comprehensive maintenance charges**

**Eighty plants involving subsidy of Rs 3.39 lakh were not working due to minor technical defects and non-maintenance**

**Expenditure of Rs 30.68 lakh on non-established energy parks was rendered wasteful**

- During 2004-07, four<sup>156</sup> agencies were engaged for survey and preparation of Detailed Project Reports (DPR) for electrification of 13 police stations/pickets in Hazaribag and 332 villages in other five<sup>157</sup> districts. The expenditure of Rs 56.94 lakh on these DPRs was rendered wasteful as all these villages were already covered under the Rajiv Gandhi Gramin Vidyutikaran Yojana (RGGVY) and the DPRs of police stations/pickets were not used as of March 2009.
- M/s Central Electronics Ltd., Sahibabad was paid (March and July 2007) Rs 11.70 lakh as comprehensive maintenance charge (CMC) for maintenance of systems for five years after installation under RVE. Joint physical verification (April 2008) by Audit with the officials of JREDA revealed that out of 955 DLS and 79 SLS installed in eight villages during 2004-05, 494 DLS (52 *per cent*) and 17 SLS (22 *per cent*) were out of order. As complaint registers were not maintained, the period since when these were out of order could not be determined. The villagers, including the Chairperson and Secretaries of VECs stated that the defective systems were not repaired by the technicians of the company responsible for maintenance.  
JREDA could not sell 83 SLS and 170 DLS worth Rs 16.96 lakh, procured under the market mode programme<sup>158</sup> during 2005-06. The systems, lying in the stores, became (April 2008) unserviceable and resulted in a loss to JREDA.
- Scrutiny of inventory of biogas plants revealed that 80 out of 688 plants, involving subsidy of Rs 3.39 lakh, commissioned during 2002-07 were not working due to minor technical defects and non-supply of pipes, gas ovens etc. These were not rectified despite availability of services of 14 biogas technicians in districts and four at headquarters. This indicated inadequate follow up/maintenance of installed systems.
- MNRE provided (June 2003) Rs 49.27 lakh to establish energy parks<sup>159</sup> in nine districts. Of this, Rs 30.68 lakh was paid to two agencies during 2003-05 for consultancy and establishment of the parks at Ranchi and Latehar. However, the parks could not be established due to change of the site at Ranchi and failure/theft of the installed systems at Latehar. The JREDA was not able to utilise balance funds of Rs 18.59 lakh and refunded (August 2007) Rs 15.53 lakh to MNRE. Thus, the objective of establishment of energy parks could not be achieved though funds were available and the expenditure of Rs 30.68 lakh was rendered wasteful.

<sup>156</sup> M/s CEL, Sahibabad; M/s GR associates, Ranchi; M/s Steel Industrial Limited, Kerala and M/s Vikashonmukh, Ranchi.

<sup>157</sup> Bokaro, Giridih, Ranchi, Saraikela-Kharsawan and West Singhbhum.

<sup>158</sup> Under this programme SLSs and DLSs are sold on subsidized rates.

<sup>159</sup> Parks where solar photovoltaic systems are installed for practical demonstration to the public.

#### **1.4.9 Internal control mechanism**

**Monitoring and evaluation was deficient. Feedback analysis was not done**

##### **1.4.9.1 Monitoring and evaluation**

JREDA was to monitor and evaluate various programmes with a system of feedback in place. The Managing Committee failed to monitor the programmes through regular meetings as the committee met only 12 times against the stipulated 28 times during 2002-09. Schedules of inspections by the officials of JREDA were not formulated. Involvement of the district administration in monitoring was never ensured, though approved by the Managing Committee. A system of feedback was not developed to ensure the usefulness of the systems and redressal of complaints of the beneficiaries.

**Internal Audit was never carried out and there was no manual for the same**

##### **1.4.9.2 Internal Audit**

Internal audit is generally defined as the control of all controls as it is a means for an organisation to assure itself that the prescribed systems were functioning reasonably well. By an order of May 1960 of the Finance Department, internal audit parties were required to conduct *cent per cent* audit of all transactions of the entity. Internal audit of JREDA was never carried out by the Finance Department. Further, there was no provision for internal audit in the Articles of Association of JREDA. JREDA also did not frame any manual detailing rules and regulations to be followed by it. In the absence of internal audit and the manual, the management had no means of knowing the areas of malfunctioning of systems and, did not have the opportunity of taking remedial action at the appropriate time.

**There was no vigilance mechanism**

##### **1.4.9.3 Vigilance mechanism**

There was no vigilance mechanism in place in JREDA. In the absence of a vigilance mechanism, JREDA could not ensure that all the operations and transactions were transparent and in public interest. Cases of fraud and embezzlement could have gone unnoticed and the guilty unpunished, which would be against the interest of the Government.

#### **1.4.10 Conclusion**

JREDA failed to achieve its main objective of exploring and exploiting new and renewable energy sources available in the State. Its activities were limited only to purchase, sale and installation of systems available in the market. JREDA did not prepare any long term Plan and Annual Plans, though prepared, were on ad hoc basis. There were huge savings of funds. Non-adherence to financial rules led to financial mismanagement and financial irregularities. Though required, Annual Accounts and Reports were never sent to the State Government. There were serious deficiencies in programme implementation including major shortfalls in achievement of targets and irregularities in installation and supply of solar systems. JREDA failed to undertake research and development work in the field of renewable technology. No training was imparted nor were any advanced studies arranged for achievement of its objectives. JREDA was manned by officials on deputation. It did not plan for expansion though its scope of work increased manifold. The monitoring mechanism for programme implementation was

also deficient as the Managing Committee failed to monitor the programmes through regular meetings.

#### **1.4.11 Recommendations**

- JREDA should develop systems and devices suitable for Jharkhand through research and development, advanced studies, field testing and training of officials;
- JREDA should ensure a workable co-ordination with the State Government for effective implementation of programmes. Involvement of the district administration in programme implementation should be ensured;
- JREDA should strictly adhere to financial rules and provisions. The cases of financial irregularities are serious in nature and should be investigated from a vigilance angle. A Controller of Finance should be appointed to strengthen its financial management;
- Maintenance of records and their due authentication should be ensured;
- A suitable monitoring and reporting mechanism with a feedback analysis system should be developed. The Managing Committee should meet regularly to monitor and analyse the working of JREDA;

The matter was reported (June 2009) to the Government. Their reply had not been received (December 2009).