

CHAPTER – V
FOREST & ENVIRONMENT
DEPARTMENT



CHAPTER-V: FOREST & ENVIRONMENT DEPARTMENT

5.1 Tax Administration

The Principal Secretary to the Government of Meghalaya, Forests & Environment (F&E) Department is in overall charge of the Department at the government level. The Principal Chief Conservator of Forests (PCCF) is the administrative head of the Department. He is assisted by Chief Conservators of Forests and Conservator of Forests. At the district level, the Divisional Forest Officers (DFOs) are entrusted with management of forests and wildlife through various divisions such as territorial, wildlife, social forestry *etc.* including levy of forest dues, wherever applicable. The collection of forest revenue is governed by the provisions of the Assam Forest Regulation, 1891.

5.2 Internal audit

The F&E Department has no separate Internal Audit Wing (IAW). Despite the same being pointed out by audit earlier, no action has been taken by the Department to create an IAW to monitor the working of the Department.

5.3 Results of Audit

Test check of the records of 14 units relating to the F&E Department during 2016-17 revealed under-assessment of tax and other irregularities involving ₹ 52.49 crore in 73 cases which fall under the following categories:

Table 5.1

(₹ in crore)

Sl. No.	Category	Number of cases	Amount
1.	Non/Short realisation of revenue	09	10.30
2.	Loss of revenue	10	28.25
3.	Other irregularities	54	13.94
Total		73	52.49

During the course of audit, the Department accepted under assessments and other deficiencies of ₹ 7.35 crore in 15 cases. No recovery was intimated in any of the cases during the year 2016-17.

A Performance Audit on “Wildlife and Forest Management in Meghalaya” having financial impact of ₹ 208.35 crore is discussed in paragraph 5.4.

5.4 Performance Audit on “Wildlife and Forest Management in Meghalaya”

Highlights

Meghalaya had two National Parks, three wildlife Sanctuaries and 24 Reserved Forests. Substantial forest areas are under the unclassified category and are owned by private individual, clans, village councils, district councils and other traditional institutions. Only 12 per cent of the recorded forest comprising Reserved Forests and Protected Forest is under the direct control of the Forest Department

- Between 2012-13 and 2016-17, 9622 cases of human-elephant conflict were reported, resulting in death of 25 persons, injury to 22 persons, and damage of crop in 4009 ha area. Proposal for establishing of Elephant Reserves under Project Elephant 2001 in Khasi Hill and Ri-Bhoi districts did not materialise.

Paragraphs 5.4.8.1 and 5.4.8.2

- There were 348 unlicensed/illegal saw mills operating in the State. The Department’s attempts to close them down permanently have been mostly ineffective.

Paragraph 5.4.9

- The Department did not maintain data on the mineral extracted, it was, not in a position to verify whether there was any illegal extraction of mineral

Paragraph 5.4.10

- The total encroached forest area reported was 8600.51 ha. as of March 2017. The Department had filed 1223 court cases for encroachment, however in no case, verdict had been awarded.

Paragraph 5.4.11

- There was dual control in collection of royalty on limestone by Forest and Mining departments. Absence of a mechanism for periodic exchange of information between the two departments, enabled transporters/companies to evade royalty payment.

Paragraph 5.4.13

- Ten cement companies paid royalty of ₹ 21.20 crore against the demand of ₹ 66.03 crore. The balance amount of ₹ 44.84 crore remained unpaid.

Paragraph 5.4.16.1

- Due to non-availability of technician manpower, tissue culture labs, and seed testing centre were partially functioning.

Paragraphs 5.4.17.1 and 5.4.17.2

- After more than 10 years since the release of grant for construction of zoo, work had not progressed.

Paragraph 5.4.18

- The Department did not exercise control and monitor the activities of the field offices effectively. This resulted in under-reporting of export of 142.29 lakh MT of limestone through four forest checkgates resulting in loss of revenue to the tune of ₹ 99.49 crore.

Paragraph 5.4.23

5.4.1 Introduction

One of the seven sister states of the north-eastern part of the country, Meghalaya, has a geographical area of 22429 sq.km. Meghalaya has two National Parks (NPs), three Wildlife Sanctuaries (WLS') and 24 Reserve Forests (RFs). Nokrek Biosphere reserve is also located in the State. Meghalaya is among the few states in the country having the highest density of elephants.



Fig 5.1 A serene view of forest in Mawphlang village

5.4.2 Forest ownership and management

About 77 *per cent* of the State extending to 17217 sq. km. is forested. Unlike the rest of the country where forests are mostly owned by the State and managed by the State forest Department, in Meghalaya, substantial forest areas are under the unclassed category and are owned by private individuals, clans, village councils, district councils and other traditional community institutions.

The recorded forest area is 9496 sq. km. out of which 1125 sq. km. (12 *per cent*) comprising Reserved Forests (RFs) and Protected Forests¹ (PFs) is under the direct control of the Forest Department. The remaining unclassed forests covering 8371 sq. km. (88 *per cent*) are managed and administered by three² Autonomous district Councils (ADCs).

¹ Reserved Forests and Protected Forests are declared by the State. In RFs, rights to all activities like hunting, grazing, *etc.* are restricted unless specified otherwise. In PFs, rights to these activities are sometimes given to communities living on the fringes of the forest, who sustain their livelihood from forest resources or products.

² Khasi Hills (KH) ADC, Garo Hills (GH) ADC and Jaintia Hills (JH) ADC.

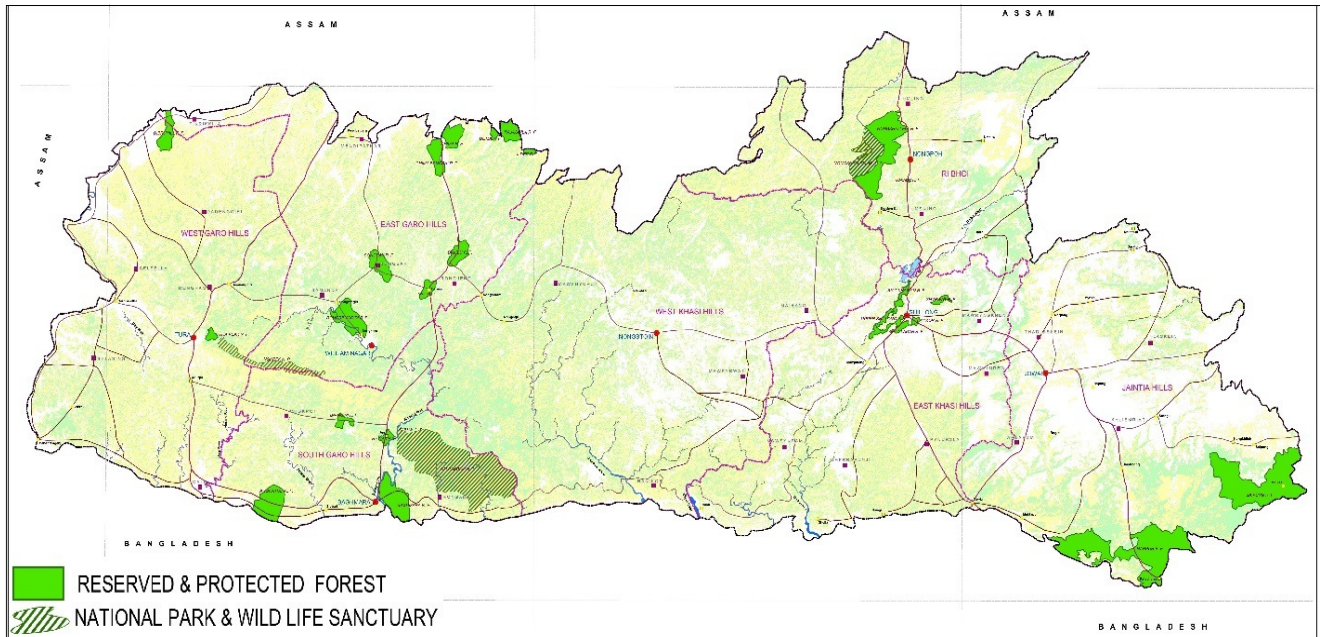


Fig 5.2 Map of State of Meghalaya depicting Protected Areas under direct administrative control of Forest Department

5.4.3 Organisational set up

The Principal Secretary (Forest and Environment) is administrative head of the Department. Principal Chief Conservator of Forests (PCCF) is the head of the Department and is responsible for all forestry, wildlife and allied activities. The PCCF is assisted by Chief Conservators of Forests (CCFs) and Conservators of Forests (CFs).

The Department is divided into four circles *viz.* Territorial, Wildlife, Social Forestry & Environment and Research & Training. At the field level, there are 18 Divisions³ each headed by a Divisional Forest Officer (DFO). DFOs are responsible for general administration, enforcement of the Forest Acts and Regulations, implementation of various schemes and monitoring of all forest activities. DFOs are assisted by Range Officers (ROs).

5.4.4 Audit Objectives

The Performance Audit (PA) was carried out with a view to assess whether:

- conservation, protection and rehabilitation activities had been adequately planned and the efficacy of their implementation with focus on:
 - a) protection of endangered/endemic species;
 - b) survey and demarcation of forest land;
 - c) anthropogenic activities such as mining, industrialisation, etc.;
 - d) action plan for forest fire disaster management; and

³ Territorial Circle (three Div.), Wildlife Circle (four Div.), Social Forestry & Environment Circle (seven Div.), Research & Training Circle (four Div.)

e) *prevention of man-animal conflict.*

- regulatory framework, in place, was adequate to ensure maximisation of revenue collection through efficient mobilisation of human resources, *etc.*
- appropriate mechanism for regular monitoring by the management and effective information sharing within the Department existed.

5.4.5 *Audit Scope and Methodology*

The Audit was conducted during May 2017 to August 2017 covering the period from 2012-13 to 2016-17. The scope of audit was limited to the management of forest areas under the direct control of the Department and other activities undertaken by the Department.

The Performance Audit focussed on the crucial areas of concern for forests in Meghalaya- encroachment/felling of trees, forest fire, illegal mining, man-animal conflict *etc.* in addition to the prevailing revenue collection mechanism.

To assess the performance of the Department on aforementioned considerations, scrutiny of records at 13 units⁴ at the divisional level along with PCCF and heads of four circles at the Directorate level was carried out. Furthermore, Medicinal Plants Board and Compensatory Afforestation Management Planning Authority were also audited.

Scrutiny of records at selected units was carried out by test check, which included interaction with the auditee personnel, issuance of audit queries and discussion of audit findings with the Management. Information from other government departments was also collected and compared with the records furnished by the Department.

An Entry Conference was held with the PCCF to discuss the Audit objectives, criteria and scope on 13 April 2017. The draft Report was issued to the Department on 17 October 2017 and an Exit Conference was held with the PCCF on 13 November 2017, wherein the views of the Department in respect of the findings were discussed. Departmental replies, wherever received, have been appropriately incorporated in the Audit report.

5.4.6 *Audit Criteria*

The following Acts/Rules were used as sources of Audit Criteria for carrying out the PA:

1. Indian Forest Act, 1927;
2. Forest Conservation Act and Rules;
3. Assam Forest Regulation, 1891 (as adapted by Meghalaya);

⁴ Territorial (three divisions – Garo Hills, Khasi Hills, Jaintia Hills), Wildlife (three divisions – Garo Hills, Khasi Hills, Jaintia Hills), Social Forestry & Environment (three divisions – West Garo Hills, East Khasi Hills, Jaintia Hills), Research & Training (four divisions - Training, Silviculture, Forest Resource Survey and Working Plan)

4. Wildlife Protection Act and Rules;
5. Meghalaya Forest (Ejectment of unauthorised persons from Reserved Forests) Rules, 1979;
6. Meghalaya Forest (Removal of Timber) (Regulation) Act and Rules;
7. Circulars/Notifications issued by Government of India/Government of Meghalaya.

5.4.7 Acknowledgement

The Indian Audit and Accounts Department acknowledges the co-operation extended by the Forest & Environment Department in conduct of this Performance Audit.

Audit findings

The Performance Audit brought out a number of system and compliance issues which have been brought out in the ensuing paragraphs.

Man, and the Animal

5.4.8 Human-Animal Conflict

Fragmentation and shrinkage of wildlife habitat has threatened the existence of many species. Mega-herbivores like the elephant with a large home range and equally large food requirement have been among the most affected species. This is one of the causes of increased human–elephant conflict and damage to property and life. Elephants usually inhabited the foothills that harbour forests. These animals thrive on the trees in the forest and now as the forests have been drastically degraded and fragmented they were entering the human habitats.

5.4.8.1 Incidents of Crop damage

During the audit period, 9622 cases of human-elephant conflict (HEC) were registered with the Forest Department; resulting in death of 25 persons, injury to 22 persons, and damage of crop in 4009 ha area. An amount of ₹ 4.41 crore was paid as ex-gratia payment to villagers for loss of life, damage to property and agricultural crop in these cases. Year wise report cases of crop damage is given in the following table:

Table 5.2 Forest Wildlife Division-wise and Year-wise reported cases of crop damage

(Area in hectare)

Forest WL Division	2012-13		2013-14		2014-15		2015-16		2016-17		Total	
	No. of cases	Area affected	No. of cases	Area affected	No. of cases	Area affected	No. of cases	Area affected	No. of cases	Area affected	No. of cases	Area affected
Garo Hills WL Div.	728	270.16	1127	412.43	928	307.47	1720	1148.62	889	247.40	5392	2386.08
Khasi Hills WL Div.	302	70.72	810	197.87	621	162.98	342	127.30	419	47.64	2494	606.51
Jaintia Hills WL Div.	76	53.39	275	160.00	00	00	12	8.00	138	55.70	501	277.09
Balpakram NP WL Div.	391	239.86	340	204.78	152	84.89	219	146.68	133	63.08	1235	739.29
Total	1497	634.13	2552	975.08	1701	555.34	2293	1430.60	1579	413.82	9622	4008.97

(Source: Details furnished by the Department)

5.4.8.2 *Elephant Reserves*

Meghalaya is home to around 1800 elephants⁵. It is evident from *Table 5.2* that Garo Hills region⁶ accounts for approx. two thirds of cases of HEC. In view of this, 3500 sq. km. area in South Garo region was notified as Elephant Reserve (ER) under Project Elephant in 2001. Proposal for establishing another ER in Khasi Hill and Ri-Bhoi districts (1331 sq.km) was submitted to Ministry of Environment and Forest (MoEF), Government of India (GoI) (June 2001). Government of India (GoI) accorded in-principle approval for it in June 2008. In meeting of Steering Committee of Project Elephant (December 2014), Chief WL Warden, Meghalaya committed that the State Government would shortly issue final notification for declaring Khasi ER. No notification was issued (December 2017).

DFO, Khasi Hills Wild Life (KHWL) Division informed the PCCF that area has been identified as important Elephant habitat and it is private or clan owned (February 2010). Department has put in little efforts to communicate that notifying ER would not change the legal status of ownership of the land. The extent of area for which Department has obtained consent from owners for declaring the area as Khasi Hills ER was not on record. Owing to this delay the Department has been deprived of additional funds from GoI for undertaking efforts for mitigating HECs in planned manner.

During a joint inspection by audit team in the Shallang area⁷ (July 2017), to assess the impact of human activities on WL habitat, Audit observed that a natural salt lick⁸ in the area which was once a big gathering place for the elephants had almost vanished. Construction activities, heaps of coal stock, and deforestation could be noticed all along the area. Fresh coal stock was found lying/dumped in these forest areas. All these have reduced the food and water availability for wildlife.



Fig 5.3 Natural salt lick at Smaring - almost vanished



Fig 5.4 Coal stock lying open in fringes of RF in West Khasi Hills



Fig 5.5 Paddy farm in the migration path of Elephants

⁵ As per MoEF census of 2017.

⁶ GHWL Division and Balpakram NP

⁷ under the proposed Khasi Hills Elephant Reserve

⁸ A salt lick is a place where animals go to lick essential mineral nutrients from deposit of salts and other minerals.

The RO, Nongpoh stated that elephants were migrating from Garbangha RF in Assam towards Nongkhylllem RF of Meghalaya where habitations have come up in the forest fringes. The stone/limestone mining quarries, human settlements and plantations like rubber, broom, *etc.* had affected migration path of elephants resulting in change in their routes and raiding human settlements for food and water.

The Department stated (December 2017) that land falling within the proposed Khasi Hills ER is owned by private individuals and communities and that efforts were being made to obtain their consent for notification of ER. The reply is, however, silent regarding recent development in obtaining the consent as it was observed from the records that public meetings with the land owners/communities were last held in March 2009.

5.4.8.3 *Elephant Corridors*

Around 51000 families of rural Meghalaya practice shifting cultivation commonly called as *jhum* cultivation on 442 sq.km land annually⁹. A good number of these reside in fringe area of protected forests. The high degree of land degradation due to *jhum* has led to severe habitat fragmentation and created scarcity of resources. Since the forest produce in the area are too small to support Elephant herds for long period of time, the elephants move from one patch of forests to another crop fields. On coming across cultivated areas, they raid crops and destroy and any homestead that stand in their way.

In Meghalaya, Protected Forests are disconnected from one another and are scattered wide apart all over the districts. There is no continuous stretch of forest between one Reserve Forest and the next because the private forest surrounding the Reserve Forests are subjected to heavy *jhum* cultivation. These private forest areas are interspersed with human habitations and crop land. Elephant corridors are strips of land used by elephants to migrate from one habitat to the next.

Understanding the importance of securing Elephant corridors for minimizing HEC, Wildlife Trust of India (WTI) in association with MoEF, GoI published a report¹⁰ detailing 88 frequented elephant corridors in India – six of which were identified in Meghalaya. Unlike others, five of these six corridors are more than five kilometres in length. Any human settlement in these corridors is highly susceptible to HEC. The State Board on WL, Meghalaya observed (January 2011) that all the DFOs should map the elephant corridors for declaring them as community reserves. The APCCF instructed DFOs, Garo Hills Wild Life (GHWL) Division and Balpakram NP (BNP) Wild Life Division to map the corridor areas and acquire the land for converting them in Community Reserves (June 2012). The DFOs were to seek help of WTI, Tura for the purpose. No action was taken on these matters. WTI was consulted on the matter only in December 2015. The Board in its next meeting in April 2016 again emphasized the matter of preservation and strengthening of elephant corridors,

⁹ Meghalaya Soil and Water Conservation report, 2001

¹⁰ Right of Passage: Elephant Corridors of India, 2005

especially the ones which have been encroached and blocked and work out alternatives in case of those which could not be recovered. However, no corridor had been notified by the State Government (November 2017).

Use of ecological corridors is a dynamic process. As such it is important to regularly survey and monitor the new paths along with the existing ones to manage them and prevent straying in human areas. Audit observed that no dedicated survey for elephant corridors had been carried out by the Department.

The Department stated (December 2017) that discussions with the land owners for acquisition of land falling in two¹¹ critically important Elephant Corridors had been initiated. Result of such discussions and the proposed timelines by which such corridors would be created had not been intimated.

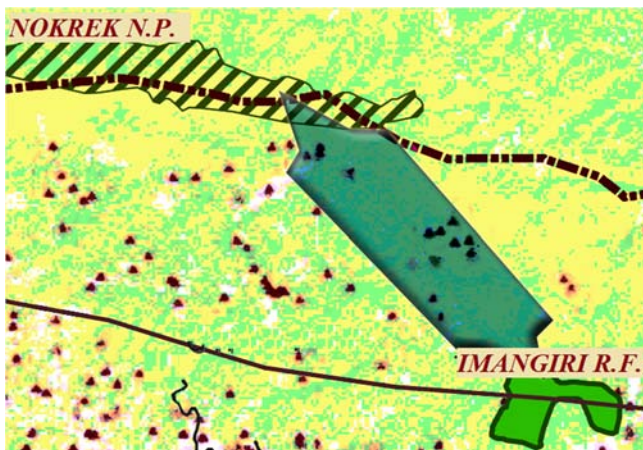
Fig 5.6 Major elephant corridors of Meghalaya

Baghmara – Balpakram Corridor





Length – 6 km Width – 4.5 km
Major land-use: Forest, plantation and agriculture (*jhum*)
Frequency of usage by elephants: Regular
Legal status of the corridor: Clan land (*Akhing* land)
Status: Corridor is obstructed due to construction of a school building. *Jhumming* has come down, but haphazard plantation is a concern.

Nokrek – Imangiri Corridor



Length – 10 km Width – 3-4 km
Major land-use: Forest, settlement and *jhum* cultivation
Frequency of usage by elephants: Regular
Legal status of the corridor: Private land (*Akhing* land)
Status: Three Community Reserves have been declared in the corridor. Limestone mining and temporary mining roads opening up in the habitat is a threat.

-  represents human settlements.
-  represents Elephant Corridor connecting two forests.

(Source: Compiled from the information obtained from Departmental records)

¹¹ As identified by Elephant Task Force, MoEF - Baghmara – Balpakram and Siju - Rewak

5.4.8.4 Incidents of Electrocution

In the past few years there had been many reports of elephants being electrocuted due to overhead cables that hang low. The reason for such incidents was because the ground clearance of the overhead cables passing through elephant highways and crossings did not meet the prescribed norms¹². Also, the electric poles were found to be very weak. The issue was brought to notice by DFO (GHWL Div.) to APCCF (August 2012) with a suggestion that the matter be taken up with Meghalaya Energy Corporation Limited (MeECL).

The State WL Board also expressed concern about the rising cases of death of elephants by electrocution (April 2016) and instructed the Department to take up the matter with the authorities in the MeECL to take urgent action to correct sagging lines and replace weakened electric poles to reduce and prevent such occurrences. Action taken on the matter was not on record. Meanwhile at least six elephants¹³ had lost their lives by electrocution in the Garo Hills during last five years. A pregnant elephant was electrocuted when it came in contact with a high-tension wire in Garo Hills (23 May 2017). An FIR was filed against Sub-Divisional officer of MeECL, Baghmara for negligence which caused the death.

The Department needs to make sure that MeECL incorporates suitable design modification in the electric poles in such corridors. Frequent incidents of electrocution reflect to the lack of information on the elephant routes and their crossings. Elephant routes need to be mapped so that developmental works can be avoided in the elephant routes to the extent possible.

5.4.8.5 Mitigation Measures

In addition to ex-gratia payment, the Department did take up some other activities *e.g.* construction of Elephant Proof barriers¹⁴ and deployment of Village Protection Squads around Balpakram National Park and plantation of fruit bearing trees *etc.* in the fringe areas of the WL sanctuary under Project Elephant. An expenditure of ₹ 3.22 crore was incurred on these activities between April 2012 and March 2017. Most of these activities were carried out in an unplanned manner. There was no comprehensive effort for mapping high conflict areas and erecting permanent barriers at different strategic points in order to prevent wild elephants from entering settlements.

The Department has started the Community Reserve initiative under which people conserve forest in and around the village and the initiative is showing positive outcomes. Department also carried out awareness drives about importance of Elephant Reserves. However, the Department has not been able to obtain consent from the villagers for declaring Elephant Reserves or acquire land for establishing

¹² Prescribed norms include adequate ground clearance, fault clearing by Circuit Breaker, provision of spike guards, barbed wire fencing *etc.*

¹³ Based on reports of the Wildlife Divisions

¹⁴ Elephant proof sausage barrier is a trench dug 1.8 m deep and 2.75 m wide with intervening septa of 2.5 m-2.7 m of length.

elephant corridors. The Department has been ineffective in monitoring and controlling construction works in high conflict areas.

Ex-gratia payments towards WL depredation cases were released to the affected villagers after considerable delay, in some cases after more than eight years. This delay may be attributed to lack of funds with the Department and the long verification process¹⁵. Delay in awarding compensation propagates hostile spirit in the villagers towards elephants as they see them as enemy. The Department may consider the option of releasing *ad-hoc* relief amount after preliminary inquiry, especially in cases of serious injuries or death. The DFO may be equipped with an imprest fund for this purpose. Effective mitigation will increase tolerance towards elephants and reduce the risk of aggressive retaliation.

The Department while accepting (December 2017) the audit recommendation stated that the proposal to provide the DFOs with an imprest fund will be looked into.

Anthropogenic activities

5.4.9 Prevalence of illegal saw mills

Hon'ble Supreme Court in its order dated 15 January 1998 had opined that the proliferation of wood-based industries was the main cause of degradation of forests in the north eastern states and hence it directed that the establishment of such industries be regulated. Consequently, Meghalaya Forest-Based Industries Rules, 1998 were enacted.

Rule 4(1) *inter alia* stipulates that all wood-based industries shall be established only in industrial estates notified by Government. Licensed saw mills duly cleared by the State-level Committee are allowed to operate within the approved industrial estates and saw mills operating outside the industrial estates are deemed illegal.

The State Government had declared seven areas in Meghalaya as industrial estates and had granted licenses to 78 wood-based industries between June 1999 and April 2014 to operate at these notified locations.

Table 5.3 Industrial Estates for wood-based industries

Sl. No.	District	Location	No of licenced wood based industries	
			Saw mills	Veneer Mills
1	West Khasi Hills	Mawiaban	6	6
2	RiBhoi	Umiam	20	17
3		Byrnihat	11	7
4		Nongpoh	1	0
5	West Jaintia Hills	Khlieh Tyrshi	5	3
6	West Garo Hills	Tura	1	0
7	East Garo Hills	Darugre	1	0
Total			45	33

(Source: Details furnished by the Department)

¹⁵ FIR followed by the joint inspection by district administration and forest department and assessed by the concerned line departments.

Information furnished by the three territorial divisions (July 2017) revealed that 348 unlicensed/illegal saw mills were operating in their territorial jurisdiction as on March 2017.

Table 5.4 Illegal Saw mills operating in the State

Year	Garo Hills		Khasi Hills		Jaintia Hills	
	No. of illegal saw mills operating	No. of saw mills closed down	No. of illegal saw mills operating	No. of saw mills closed down	No. of illegal saw mills operating	No. of saw mills closed down
2012-13	94	86	83	*	112	-
2013-14	33	33	*	*	145	-
2014-15	49	-	175	*	148	2
2015-16	31	-	164	*	161	17
2016-17	31	-	*	*	160	7
(* Information not available/furnished with/by the divisions)						

(Source: Details furnished by the Department)

The Department had been ineffective in closing down the illegal saw mills which had been detected by the Department itself. In JH Div., hardly any illegal saw mill was closed by the Department. Consequently, the number of illegal saw mills operating had remained unchanged during the last three years. Audit analysed the action taken in all the three territorial divisions and observed that:

- In Jaintia Hills, the DFO took up the matter (June 2014) with the Executive Engineer (EE), MeECL, Jowai to disconnect power connection of 13 illegal saw mills. Accordingly, MeECL disconnected (November 2014) the power supply to these illegal mills. In respect of the remaining 135 illegal saw mills, cases were not forwarded to MeECL. The DFO informed (March 2016) the Deputy Commissioner (DC), JH District, Jowai that 160 illegal saw mills were operating in the division with a request to take action for their closure. Further action taken by the DC or DFO was not found on record.
- In Khasi Hills, 164 illegal saw mills were detected as operational upto March 2016. The DFO took up the matter with the DC and the SP (June 2015) to provide logistical support for closure of illegal saw mills, but it did not evoke any response from the concerned authorities. DFO did not follow-up the matter. The DFO forwarded the list of 31 saw mills (December 2016) to the EE, MeECL, Shillong with a request to disconnect their power supply. Thereafter, the DFO never pursued the matter with the MeECL, nor did the MeECL inform the Department about the action taken on the matter.
- In Garo Hills, 31 illegal saw mills were detected as operational upto March 2017. These mills are mostly found in the plain belt of the West Garo Hills. Attempts to



Fig 5.7 Sawn timber buried underneath earth in an illegal saw mill in Khasi Hills

close them down have been mostly ineffective. These mills have plundered the plantations raised under various schemes in these areas. They are also known to be involved in illegal timber removal from the Dibru Hills RF. No action taken by the DFO to close these saw mills down was on record.

The Forest Department did not put any efforts to identify the source of timber for these saw mills and the means with which the sawn timber was being sold in the markets. As observed in *Para 5.4.12*, the Department has seized several trucks of sawn timber, but had shown little interest in following-up the court cases of transporting of illegal timber. The fact that large tract of forests is under the control of ADCs complicates the existing situation. Weak enforcement by the Department to check movement of forest produces within the State ensured that the Department's response to the problem had been highly reactive.

The Department needs to devise a system to make sure the finished product of big illegal saw mills is not able to reach the organized markets. Audit observed that the DFOs did not inspect any of the retail sawn timber outlets during the period of audit.

Mention of illegal operation of saw mills was made in the earlier Audit Report¹⁶. The Department stated to Audit that its efforts to close down illegal saw mills permanently were ineffectual. FIRs lodged with the police and assistance taken from the Meghalaya Energy Corporation Limited (MeECL) achieved little success. In some cases, the power line was connected illegally and without any meter. The owners have even been known to shift the mills from Meghalaya to Assam when the authorities proceed for closing down operations.

The inability of the Department in finding a permanent solution for closure of saw mills is a matter of serious concern with grave implications for the ecology and environment. In Garo Hills, Sal forests outside of the Reserve Forests have almost disappeared due to indiscriminate felling of timber and *jhumming*.

The Department stated (December 2017) that in order to tackle the problem of illegal sawmills, District Level Special Task Force with representatives from forest, district administration, police, MeECL and ADC had been notified in each district. Meetings in all Garo Hills districts had been held and joint enforcement teams would be mobilized for closure of illegal sawmills.

5.4.10 ***Illegal Mining in the State***

The state of Meghalaya is mountainous, with stretches of valley and rivers and highland plateaus, and it contains rich deposits of valuable minerals like coal, limestone, uranium and sillimanite.

The Supreme Court in its 2009 judgement¹⁷ held that sand mining had an adverse effect on bio-diversity and ordered that any lease¹⁸ for extraction of minor minerals

¹⁶ CAG Audit Report for State of Meghalaya for the year ended 31 March 2011

¹⁷ Special Leave Petition (C) No 19628-19629 of 2009.

including their renewal should be granted by the State Governments only after getting Environmental Clearance (EC) from MoEF. The GoM in January 2012 prohibited extraction of stone/boulders from river beds and instructed DFOs not to issue any Transit Pass or allow removal of stone/boulders from river beds without prior approval of the Government. Further, the National Green Tribunal (NGT) in its judgement dated August 2013 restrained mining activity or removal of sand from river beds anywhere in the country without obtaining EC from MoEF/State Environment Impact Assessment Authority (SEIAAA).

During the period of audit, the status of grant of Environmental Clearances (ECs) for mining of minor minerals¹⁹ and limestone is given in *Table 5.5*. No EC was granted by SEIAA for mining of river sand/stone.

Table 5.5 Details of ECs granted in the State

Year	Number of ECs granted	Location	Area (in Ha)
2012-13	Nil	Nil	Nil
2013-14	4	Ri-bhoi and West KH	36.92
2014-15	Nil	Nil	Nil
2015-16	Nil	Nil	Nil
2016-17	14	West GH, South West GH, East JH and Ri-bhoi	47.33 Ha and 20000 sq. feet.

(Source: Compiled from Departmental records)

5.4.10.1 Illegal extraction of sand/stone from river beds

Although no Environmental Clearances were issued for sand/stone mining in Khasi and Garo Hills, it was observed during the course of the audit that extractions of sand and boulders from river beds was prevalent in these divisions²⁰. It was further observed that the DFO, GH Territorial Division issued transport passes for removal and transport of the extracted sand/stone, thus regularising the illegal extraction in the area. It was in violation of the Government order as well as the judicial pronouncements.

The Department stated (December 2017) that the permits were issued by the DFO for the already extracted stock of minor minerals prior to June 2015. The reply is not acceptable as the DFO issued transit passes for transportation of river sand in contravention of the Supreme Court Order of 2009 and the GoM order of 2012.

5.4.10.2 Monitoring of extracted minerals

The High Court of Meghalaya in its judgement dated June 2015 prohibited all mining activities in the State unless EC was granted for extraction of minerals. However, the already extracted minerals were allowed to be transported and the DFOs were instructed (December 2016) to assess the already extracted minerals. Accordingly, the

¹⁸ For an area less than five hectare

¹⁹ Building Stone, Gravel, Clay and Sand *etc.*

²⁰ Nine cases of illegal extraction of sand/stone from river beds were detected in Khasi and Garo Hills by the Department.

DFOs assessed (January 2016 to March 2016) the extracted minerals under their divisions as *Table 5.7*

Table 5.6 Stock of minerals assessed by Forest Department

Territorial Div.	Limestone (in MT)	Stone/boulders (in cu. m.)
Khasi Hills Div.	942100	90350
Garro Hills Div.	--	11190
Jaintia Hills Div.	4566396	345091
Total	5508496	446631

(Source: Compiled from Departmental records)

Examination of records revealed the following:

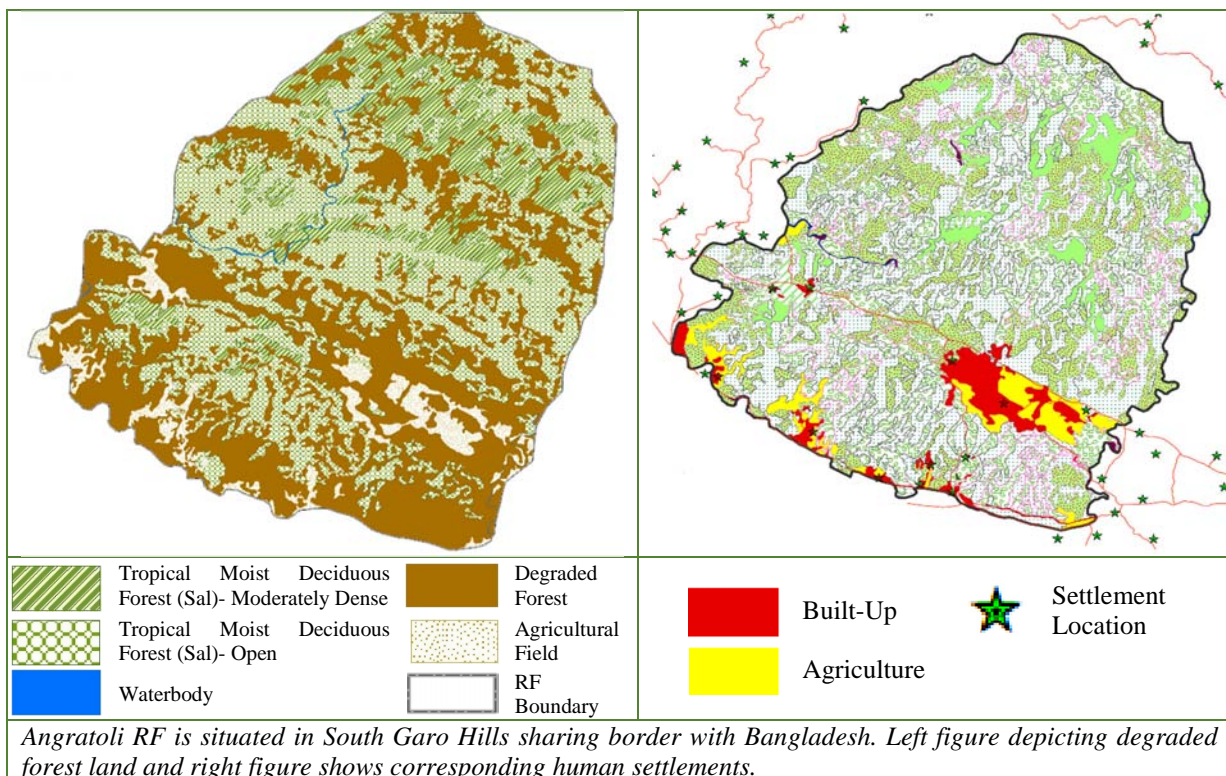
- The Department failed to make appropriate guidelines for transportation of the assessed minerals. There was no mechanism for issuing of permits specific to the extracted minerals. There was no provision of periodic inspection by the Forest officials to assess the left-over stock of the minerals with the suppliers. Also, the only source of information for the quantity of minerals removed was through Transit Pass issued by the Department, which contains the details of quantity authorized to be transported. If the checkgates detect overloading, a fine was levied, however the excess quantity being transported was not reconciled with the account of left-over stock.
- The Department did not maintain data of the minerals transported during the period from July 2015 to December 2015. There was no record of the details of royalty being received from transportation of the already assessed minerals. Based on the Department's assessment, 55.08 lakh MT of limestone and 4.47 lakh MT of boulders had already been extracted on which royalty amounting to ₹ 54.79 crore²¹ was realisable. During the period from April 2016 to March 2017, the Department realised ₹ 37.25 crore as royalty from transport of limestone and boulders. Thus, as per Department's own estimates, atleast ₹ 17.54 crore was yet to be realised from the transport of the balance quantity of minerals already extracted. The Department did not maintain data on the minerals extracted, it was however, not in a position to verify whether there was any illegal extraction.

5.4.11 Encroachment in the Reserve Forests

In general, the forest fringe area is conspicuously different from the inner forest due to close contact with local communities. The communities living in the forest fringes depend heavily on the forest for their fuel wood and fodder needs. Forests are self-sustainable eco-systems. However, due to pressure of increasing population and relaxed regulation, land outside the protected areas has greatly degraded and dense forests outside RFs have almost perished.

²¹ 5508496 MT x ₹ 80 per MT (limestone) = ₹ 440679680 plus 446631 MT x ₹ 240 per MT (boulders) = ₹ 107191440; Total = ₹ 547871220

Fig 5.8 Angratoli RF - Status of land degradation and human settlements



5.4.11.1 Unabated illegal encroachment in reserved forests

It was observed during the audit that encroachment in Reserve Forests in the State is increasing continuously. The total area reported to have been encroached as on March 2012 was 8536 ha, against which 1136 court cases were filed. During the audit period, additional 64 ha area was reported encroached rendering the total reported encroached area to 8600 ha as on March 2017.

Table 5.7 Details of forest area encroached division-wise

Name of the Territorial Division	Year	Area encroached (in Ha)		Area Cleared (in Ha)	
		No of cases	Area	No of cases	Area
Garo Hills Division	1980-2012	162	464.03	Nil	Nil
	2012-13	5	7.31	Nil	Nil
	2013-14	5	6.58	Nil	Nil
	2014-15	9	5.47	Nil	Nil
	2015-16	8	5.86	Nil	Nil
	2016-17	9	19.06	Nil	Nil
Khasi Hills Division	1980-2012	3	1.28	Nil	Nil
	2012-13	2	0.13	Nil	Nil
	2013-14	Nil	Nil	Nil	Nil
	2014-15	Nil	Nil	Nil	Nil
	2015-16	Nil	Nil	Nil	0.06
	2016-17	26	1.95	Nil	Nil
Jaintia Hills Division	1980-2012	971	8070.88	Nil	Nil
	2012-13	2	0.51	Nil	Nil
	2013-14	Nil	Nil	Nil	Nil
	2014-15	3	2.2	Nil	Nil
	2015-16	3	0.14	Nil	Nil
	2016-17	15	15.11	Nil	Nil
Total		1223	8600.51	Nil	0.06

(Source: Departmental records)

From the previous table, it is seen that majority of the encroachment was reported in Jaintia Hills Division (8088.84 ha).

The Department has filed 1223 court cases for encroachment up to March 2017, however in no case, verdict has been awarded. Some of these cases date back to 1990's. The DFOs did not follow up/pursue the cases sent to the court. During audit, the DFOs stated that once a case is filed, it is monitored by the departmental lawyer. The position of cases filed was not being monitored centrally at the Directorate level. The inability of the Department to clear these cases has emboldened other miscreants to encroach further and further in the forest land. No action taken by the DFOs under Rule 3²² of the Meghalaya Forests (Ejectment of Unauthorised persons from RFs) Rules, 1979 was available on record.

The MoEF in February 2004²³ had directed that in respect of any fresh occupation of forest land, the State Government shall hold the concerned DC, SP and DFO personally responsible for such encroachment and they would be liable for disciplinary action in such respect. Also, encroachment monitoring committees had to be constituted at State, Circle and District levels, who were to meet quarterly, to monitor the status of eviction from encroached land. Audit observed that the GoM had not implemented these directives.

5.4.11.2 Non-availability of information pertaining to encroachment prior to October 1980

Section 6 of the Forest (Conservation) Act, 1980 (with amendments in 1988) provides for regularization of encroached land for forest dwellers, who are in continuous possession of forest land prior to 25 October 1980, shall be eligible to be considered for settlement of land right. In no case where encroachment which had taken place after 24 October 1980 regularization was to be carried out.

In response to an audit query about details of forest area encroached before 1980, GH Div. replied that the information was not available. Other Divisions also did not furnish the information. No survey had been conducted to ascertain the rights of the settlers/encroachers. In the absence of the information about encroachment prior to October 1980, the Department was not in a position to take up the matter with the GoI for regularisation of such encroachment cases.

5.4.11.3 Unauthorised issue of Land Holding Certificate within Reserved Forest

Audit observed that three land holding certificates for land within Narpuh RF area were issued by the JH ADC to private parties. Though the DFO raised the issue with the ADC, no information was available about cancellation of the certificates.

The Department had not reconciled the RF area in the State with the Land Records & Survey Department. Failure of the Department to reconcile the records of RFs with

²² DFO may evict any person who has unauthorizedly occupied land in a RF.

²³ MoEF letter dated 05 February 2004 to Chief Secretaries and PCCFs of all states.

the Land Department had contributed towards such irregular issue of land holding certificates by the district councils.

5.4.11.4 Impact of Encroachment

Encroachment is invariably followed by clearing of land. Sometimes the encroached land is used for the settlements, however, in most cases it is for the agricultural purpose. Generally, the encroached land is the extension of agricultural farms in the fringes of the protected forests. It leads to fragmentation of the wildlife habitat resulting in incidents of Human Elephant Conflict (*Para 5.4.8*).

In Meghalaya, common practice employed by villagers to clear the land for farming is through *jhumming*. This is the most frequent cause of forest fires. In Meghalaya, 62 per cent of the forests are tropical moist deciduous type, which makes them highly susceptible to forest fires. During the period 2012-17, 8472 forest fire points were reported in Meghalaya by Forest Survey Institute, MoEF – 80 per cent of which were in the month of March alone.

There were atleast 10 RFs in Garo Hills in which forest villages²⁴ were present. The population in the Forest Villages had increased and they freely constructed houses in the vicinity of the land holder. Proper demarcation of Forest boundary had not been done by the Department.

Extreme vigilance is required on part of the Department to detect and evict any encroachment in and around Forest villages before any permanent structure comes up.

The Department stated (December 2017) that the RFs had been properly demarcated and it had undertaken serious efforts to tackle the problem of encroachment. However, the fact that the encroachment of forest land was on the rise and that the Department had not able to win a favourable verdict in any of the court cases relating to ownership of encroached forest land indicates otherwise.

Revenue collection systems

5.4.12 Removal and disposal of timber

Timber felling without authorization is illegal in Meghalaya so an offender can be prosecuted at the time of actual felling of trees, transport, trade or use of timber product. Felling and removal of trees from a RF without valid pass constitutes a forest offence²⁵ punishable with fine of twice the amount of such damage. A Forest Officer or Police Officer is empowered²⁶ to seize the forest produce in such an event and magistrate can direct the sale of the seized produce.

In Meghalaya claimed seized timber is referred to the judiciary through offence reports and disposed after court's verdict, as per extant practice. However, unclaimed

²⁴ Settlements inside protected area where legal rights of transfer of title are applicable.

²⁵ Sections 24 and 25 of the Assam Forest Regulation Act, 1891 (as adapted by GoM)

²⁶ Section 49 read with Section 54 of the Act.

or wind fallen timber is allotted to Forest Development Corporation of Meghalaya Limited (FDCML) after approval of the Government on advance payment of royalty.

Only 12 *per cent* of the recorded forest area is under the administrative jurisdiction of the State Forest Department. The Department has no authority to control felling of timber outside its jurisdiction as the remaining 88 *per cent* is either controlled by the ADCs, communities or private owners. This multiplicity of jurisdiction results in a complex state of affairs where stopping illegal timber felling at the time of actual felling was very difficult. The only instrument available with the Department to deter illegal felling was to catch the offenders during transportation of timber, where it has *pan-State* jurisdiction.

5.4.12.1 *Delay in disposal of offence cases*

As discussed in *Para 5.4.9*, there is a proliferation of illegal sawmills in the State which is invariably linked to the problem of illegal felling of trees in the State. Audit test checked the offence reports under DFOs in all three territorial divisions. It revealed that 276 cases of illegal felling of timber were detected during transportation by the Department and 62 cases of encroachment and illegal felling of trees in the RFs were spotted during the Audit period. 245 offence cases relating to illegal felling and



Fig 5.9 Seized illegal timber under GH Div.

transportation of timber, measuring 3486.34 cu. m. valued at ₹ 80 lakh, were pending with the judiciary (July 2017). Delay in disposal²⁷ of these offence cases would result in degeneration of the timber and loss of its commercial value. The fact that so many offence cases relating to illegal felling of timber were pending, calls for a systemic approach on part of

senior management to follow-up and dispose these cases at the earliest. This would also work as an effective deterrent.

5.4.12.2 *Delay in allotment/lifting of timber*

The DFOs on receipt of timber lots²⁸ from the respective Range officers forward the request to the PCCF for allotment of timber who then obtains government's approval for disposal. All allotments to the FDCML are made on an order of State Government.

Audit observed that during the period between 2012-13 and 2016-17:

- The DFO, Garo Hills had forwarded details of 2481.13 cu. m. of timber valued at ₹ 1.57 crore for the period from April 2012 to March 2017 to the PCCF.
- The Government, however, belatedly accorded approval for disposal of 1174.79 cu. m. of timber valued at ₹ 75 lakh between September 2015 and February 2017 for disposal of timber lots of 2013-14, 2014-15 and 2015-16. In respect of the

²⁷ Hardwood timber decays within three years and softwood within a year.

²⁸ either seized or wind fallen

1306.34 cu. m. of timber for 2012-13 and 2016-17 valued at ₹ 82 lakh, approval was yet to be granted by the Government (November 2017).

- Out of the allotted 1174.79 cu. m. timber, the FDCM lifted only 837.79 cu. m. and rejected 385 pieces of timber measuring 82.76 cu. m. from the year 2013-14, stating that the same had deteriorated and were no more fit for utilisation. This resulted in loss of government revenue amounting to ₹ 4 lakh.
- In respect of other lots for the years 2013-14, 2014-15 and 2015-16, the allotted timber measuring 254.24 cu. m. valued at ₹ 12 lakh was yet to be lifted by FDCML. Action taken by the Department to approach FDCML regarding the delay was not on record.

Delay in obtaining approval from the State Government by the Department and in lifting of timber by FDCML would result in the timber getting deteriorated and unfit for disposal.

5.4.12.3 *Lack of facilities for safe-keeping of timber*

During the audit, a physical verification of the timber stock kept within the premises of the DFOs of Jaintia Hills and Garo Hills divisions was conducted. It was observed that that seized timber was kept in the open within the premises of the Department without any facilities for its safe-keeping and being exposed to the vagaries of nature. Some of the seized timber had decayed.

It was also observed that the FDCML has reported to the DFO, Garo Hills division that ten lots of allotted timber, measuring 105.59 cu. m. and valued at ₹ 5 lakh, were missing from the concerned range. This is attributable to the absence of proper storage and safe-keeping of timber, thus resulting in financial loss to the Department.



Fig 5.10 JH and GH Territorial Divisions - [a] Seized timbers kept in the open; [b] Timber has decayed

5.4.13 *Duality of control on collection of royalty on limestone resulting in loss of revenue to the Government*

Limestone is listed as a Second Schedule mineral in the Mines and Minerals (Development and Regulation) Act, 1957 and the rate of royalty is fixed by the GoI and therefore treated as a major mineral. In Meghalaya, however, limestone is listed as a minor forest produce also regulated as per the Assam Forest Regulation Act, 1891. Therefore, royalty on limestone is collected by Forest Department and Mining & Geology Department both. The Forest Department collects royalty (at ₹ 80 per MT) on limestone from forest areas whereas the Mining Department collects royalty on

limestone from non-forest (leased) areas. Additionally, the Mining Department realises ₹ 20 per MT as cess on limestone under the provisions of the Meghalaya Mineral Cess Act.

As per extant practice, the Mining Department realises royalty and cess from transporters and issues Mineral Transport *Challans* (as proof of payment of royalty) and Mineral Cess *Challans* (as proof of payment of cess). These *challans* are then verified at mining checkgates at the exit points of the State and penalty/additional royalty/cess is realised subject to non-production of *challans* or excess carriage of limestone. However, in respect of limestone on which royalty is realised by the Forest Department, separate permits are issued and are verified at the forest checkgates only. This peculiar situation had resulted in avenues for escaping with excess quantity of limestone being transported without detection, thus causing loss of revenue to the State as explained in the succeeding paragraphs:

5.4.13.1 Non-realisation of cess by Mining Department on which royalty was realized by Forest Department

As per Forest Department records, 45.42 lakh MT of limestone was extracted/ removed/ transported from the State from non-leased forest areas between 2012-13 and 2016-17, on which Forest Department collected royalty accordingly. However, Mining Department realised cess only on 28.20 lakh MT of limestone. This resulted in non-collection of cess from on 17.22 lakh MT of limestone amounting to ₹ 3.44 crore²⁹.

5.4.13.2 Non-realisation of royalty in Garo Hills

Between 2012-13 and 2016-17, 66 thousand MT of limestone was transported outside the State from Garo Hills. The Divisional Mining Officer, Williamnagar realised only cess on this and did not realise royalty stating that there were no leased areas in Garo Hills. At the same time Forest Department also did not collect royalty because the limestone was not disclosed as from non-leased limestone origin. This confusion led to evasion of royalty on limestone amounting to ₹ 41.77 lakh³⁰ in Garo Hills.

5.4.13.3 Evasion of royalty by cement companies

During the audit, it was observed that six cement companies under DFO, JH Territorial Div. received 2.16 lakh MT of limestone between April 2013 and March 2015 and accordingly paid the due royalty to the DFO. Cross check with the records of the Divisional Mining Officer, JH Div., revealed that during the same period, the cement companies disclosed 7.98 lakh MT of limestone received from non-mining lease areas on which they paid cess only. Due to absence of co-ordination between the two departments, the cement companies concealed 5.82 lakh MT of limestone resulting in evasion of royalty of ₹ 4.04 crore (*Annexure VII*).

²⁹ 17.22 lakh MT x ₹ 20 per MT = ₹ 3.44 crore.

³⁰ 66303.75 MT x ₹ 63 per MT = ₹ 41.77 lakh.

In absence of a mechanism for periodic exchange of information between the two departments, the transporters/companies continued to evade royalty on limestone by disclosing different information about the place of extraction (leased or non-leased area). It is difficult to ascertain the Department responsible for the loss and demand accountability in such a scenario. Government needs to address this issue of dual control over collection of royalty on limestone.

The Department stated (December 2017) that duality of control on limestone is inevitable as limestone is both a major as well as a minor mineral depending on its end use. The reply is not acceptable as limestone is a notified mineral under Section 3(ea) of the Mines and Minerals (Development and Regulation) Act, 1957 and not a minor mineral as defined under Section 3(e) of the Act *ibid*.

5.4.14 Delay in communicating information about revision of fees/royalty

Forest Department collects royalty on Minor minerals and Forest produce and levies fee on exports of these goods. GoM fixes and revises these rates based on the recommendations of the Department. After notification, this information is required to be communicated to respective field offices, departmental check-gates for effective enforcement and to other government departments which utilize these produces and are mandated to collect royalty from the contractors and remit it with Forest Department.

5.4.14.1 Short/non-levy of Export Fees

Forest Department revised fee on export of minor minerals and forest produce on 11 October 2013 as shown in *Table 5.8*.

Table 5.8 Rate of Export Fee on Forest produces

(Amount in ₹)

Type of forest produce	Fee per truck	
	Old Rate	Revised Rate
Bamboo and minor minerals	300	1000
Firewood/Sawn timber/Timber	200	5000

(Source: Compiled from Departmental records)

Scrutiny of monthly revenue statements furnished by Byrnihat Range and Southern Range under DFO, KH Territorial Div. revealed that they continued to levy fee at old rates till December 2013. Meanwhile atleast 11572 trucks carrying minor minerals, bamboo and timber exited from the State (November – December 2013) on which export fee amounting to ₹ 1.80 crore was collected against payable of ₹ 2.03 crore resulting in short-realisation³¹ of ₹ 23 lakh. (*Annexure VIII*)

³¹ Date-wise break-up of number of Trucks for the month of October 2013 was not available. Short realization would be ₹ 77.81 lakh if Oct 2013 is also taken into account.

5.4.14.2 Short/non-levy of royalty from user-agencies

In Meghalaya, all user departments³² utilising minerals for execution of works contracts are responsible for deduction of royalty from the contractors' bills and depositing the same to the concerned forest divisions. Forest Department revised the rates of royalty on forest produce on 19 June 2014 as shown in *Table 5.9*.

Table 5.9 Rate of Royalty on Minor minerals

(Amount in ₹)

Minor Mineral	Royalty (per cu. m.)	
	Old Rate	Revised Rate
Stone	80	240
Sand	30	90
Earth and Clay	32	100
Blindage	30	90
Granular Matter	80	240

(Source: Compiled from Departmental records)

Audit examination of records under all three territorial divisions pertaining to payment of royalty by the user agencies revealed that 4.83 lakh cu. m. of sand, 12.60 lakh cu. m. of stone, 53 thousand cu. m. of earth, 11 thousand cu. m. of blindage³³ and 68 thousand cu. m. of granular matter³⁴ were extracted. They were utilised for various works by the contractors of 46 different departments/divisions between July 2013 and March 2017. Royalty amounting to ₹ 36.87 crore was realisable. However, the departments collected ₹ 9.68 crore as royalty from the contractors' bills and remitted the same with the DFOs. The DFOs did not take up the matter with the user agencies. This resulted in short realisation of royalty of ₹ 27.18 crore from contractors (*Annexure IX*).

Similar observations about loss of revenue on account of revision of rates have featured in previous audit reports³⁵. The rate of royalty on limestone was revised from ₹ 45 per MT to ₹ 63 per MT with effect from 28 September 2010. However, the field offices³⁶ continued to levy the royalty at old rates, resulting in loss of revenue of ₹ 1.15 crore. The Department needs to look into the issue and establish swift medium of communication regarding important instructions so that there is no delay in complying with the latest instructions.

The Department while accepting (December 2017) the audit observation stated that any future revision of rate would be made effective after a certain period of time for proper dissemination of information to the Divisions/ Ranges.

³² Department which undertake works on behalf of the Government e.g. Works Department

³³ Sand when used for road construction is called blindage.

³⁴ Granular matter is crushed stone.

³⁵ CAG Audit Report for the State of Meghalaya for the year 2011-12 and 2013-14

³⁶ RFO, Southern Range under the DFO, KH Territorial Div. and DFO JH Territorial Div.

5.4.15 No provision of timely revision of royalty/fee

Forest Department charges royalty on Minor minerals and Forest produce extracted from forest areas and levies fee on exports of these goods out of the State. On the recommendation of the Department, GoM fixes and revises these rates based on the Department's proposal. Revision is done on account of prevailing market rates and to incentivise/dis-incentivise the extraction of some particular produce.

The issue for not revising the rate of royalty and export fee since November 1998 and October 1999 was raised in previous Audit Report³⁷. Subsequently, Government directed the Department (October 2011 and December 2011) to submit a proposal for revision of rate of royalty and export fee. Government revised these rates in June 2014 and October 2013 respectively. In this respect Audit observed:

➤ **Delay in revision of rate of royalty on minor mineral**

The Department submitted the proposal for revision of royalty in April 2013 in compliance with Government's directive of October 2011. These revised rates were subsequently approved and notified by the Government in June 2014.

The Department delayed submitting the proposal for revision of royalty rates by 15 months. Further, during the period³⁸ from April 2012 to March 2013, all three territorial divisions realised ₹ 3.01 crore as royalty on extraction of 52.15 lakh cu. m. of minor minerals. Delay on part of the Department in sending the revised proposal to the Government, accounts for non-realisation of additional revenue of ₹ 6.07 crore. (**Annexure X**)

➤ **Delay in revision of export fees on forest produce**

The Department submitted the proposal for revision of export fee on forest produce in October 2013 after 20 months of Government's directive of December 2011. These revised rates were subsequently approved and notified by the Government in October 2013.

During the period³⁹ from April 2012 to September 2013, all three territorial divisions realised export fee amounting to ₹ 61 lakh on 20554 out-of-State bound trucks laden with forest produce. Delay on the part of the Department in taking prompt action on the Government's directive resulted in non-realisation of additional revenue of ₹ 69 lakh (**Annexure XI**).

Audit observed that there is no system of periodic revision of rates of royalty/fee in Meghalaya unlike other States e.g. Assam. There has been substantial delay in Department's response in submitting the proposal for revised rates after Government's direction. This deprived the Government of additional revenue which could have been collected on account of timely revision of these rates.

³⁷ CAG Audit Report for the State of Meghalaya for the year ending 31 March 2011

³⁸ Month-wise details could not be made available to audit during the PA. Hence the period from November 2011 to March 2012 is not taken into account.

³⁹ Month-wise details for the year 2011-12 could not be made available to audit during the PA. Hence the period from December 2011 to March 2012 is not taken into account.

The Department while accepting (December 2017) the audit observation stated that the audit recommendation for timely revision of rates would be examined.

5.4.16 Status of Arrear revenue

As on March 2017, Forest Department had ₹ 47.30 crore as outstanding revenue to be collected. The details of arrears are shown in Table 5.10.

Table 5.10 Details of Outstanding Revenue Collection

(Amount in cr ₹)

Name of the entity	Arrear receivable
Forest Development Corporation of Meghalaya Ltd. (FDCML)	0.91
Cement companies	44.84
Total	45.75

(Source: Compiled from Departmental records)

5.4.16.1 Arrear Revenue and action taken thereon

It is evident from the Table 5.12 that 98 per cent of arrears were on account of non-payment of royalty by the cement companies. The DFO, JH Div. issued 118 demand notices between November 2011 and February 2017 to ten cement companies for payment of outstanding royalty amounting to ₹ 66.03 crore on 92.37 lakh MT of limestone consumed between April 2010 and August 2015 (*Annexure XII*). In response to the demand notices, the cement companies paid royalty of ₹ 21.20 crore. Balance amount of ₹ 44.84 crore remained unpaid. No further action was taken by the DFO to realise this outstanding amount.

As per the Assam Forest Regulation, 1891 (as adapted by Meghalaya), the Forest Development Corporation of Meghalaya Limited (FDCML) is allowed to lift timber from the Department after payment of royalty in advance. As on March 2017, the FDCML was yet to clear the outstanding amount of ₹ 0.91 crore towards payment of royalty on timber. The arrears accrued because the FDCML was allowed to lift timber without payment of royalty in contravention of Rule 2 of the Transit Rules framed under sections 40 and 41 of the Act.

5.4.16.2 Position of Bakijai Cases

Under Section 75 of the Assam Forest Regulation, 1891 (adopted by Meghalaya) all money due to Government if not paid when due, is to be recovered as if it were arrears of land revenue. In such cases where revenue could not be realised through departmental procedures, these should be forwarded to the *Bakijai* Officers⁴⁰ for recovery.

The Department had forwarded 112 arrear cases with revenue implication of ₹ 1.55 crore pertaining to forest receipts to the *Bakijai* officers between June 1966 and June 2006. The Department did not forward any additional case to the *Bakijai* officer for recovery after June 2006.

⁴⁰ The Deputy Commissioner for the district is the *Bakijai* officer in Meghalaya.

The *Bakijai* officers did not intimate recovery of arrear revenue to the Department in any of the cases. The Department failed to monitor or further pursue the matter once the case was referred to *Bakijai* officers. Despite failing to realise Government revenue, the reason for not referring these cases to the *Bakijai* officers was not available. Consequently, government revenue remained unrealised to that extent.

Infrastructure

5.4.17 Facilities for Plant Propagation

Silviculture Division is engaged with maintaining and improving growth, composition, health, and quality of forests and protection of endemic and threatened plant species in Meghalaya. The activities *inter alia* include *ex-situ* cultivation and *in-situ* conservation through herbal garden, nurseries *etc.* and afforestation efforts in abandoned areas. For this purpose, the Department has set up nurseries, tissue culture laboratory, seed bank *etc.*

5.4.17.1 Tissue Culture Laboratory

A tissue culture laboratory was constructed at Upper Shillong at a cost of ₹ 1.89 crore and was made operational in July 2013. The objective of this lab is to employ tissue culture technology⁴¹ to produce high quality planting material of commercially important species, medicinal plants, bamboo and orchids and to conserve endangered and endemic plants by restocking wild population with tissue culture grown seedlings for large scale propagation.

As per the records, thirty species⁴² of endangered and rare plants, were being tested and cultured and stocked in the tissue culture lab. Audit observed that the infrastructure of the lab was not adequate for large scale production of cultured seedlings and due to limited cultured planting materials, only pitcher plant was being cultured. The bacteriological chamber remained unutilized due to lack of technician/professional for carrying out the tests.



Fig 5.11 Bacteriological lab lying idle



Fig 5.12 Inadequate space for production of planting material in culture room

Without prioritizing to make efforts for the first lab to run at its full capacity, the Department spent an additional ₹ 1.50 crore towards construction of two more tissue culture labs at Sohra and Tura. These labs were completed in March 2015. However,

⁴¹ Plant tissue culture technology relies on the fact that many plant cells have the ability to regenerate a whole plant. The main advantage of this technique is the production of exact copies of parent plant.

⁴² *Nepenthes Khasiana*, *Nymphea Tetragona*, Orchids *etc.*

requisite lab equipment and technical manpower for running the labs had not yet been provided till date of audit, thus rendering the lab inoperational.

5.4.17.2 Seed Testing Centre

With a view to make quality seeds available for plantations, Forest Department constructed a seed testing centre at Umkhuti in 1993. The main objective of the Centre was to collect seeds of superior trees/stands, process, grade, store and supply to Forest Department and other government departments, non-governmental agencies, farmers and others interested in seed of forest tree species for propagation.



Fig 5.13 Seed-testing equipment lying idle

The centre is required to have infrastructure for processing, grading, optimal storage and periodic testing of seeds. Audit observed that the equipment⁴³ for the laboratory were lying idle. Due to poor choice of location⁴⁴ and lack of maintenance funds, it remains non-functional even after 24 years of construction. The building is being utilized as Training Centre since January 2016.

5.4.17.3 Nursery

During the period from 2012-13 to 2016-17, the Division incurred ₹ 72 lakh on raising of seedlings of rare and endangered species and medicinal plants in the four nurseries and plantations at Lumsohpetbneng. Audit observed that the facility lacked proper maintenance of the plants raised. The Mist Chamber⁴⁵ was being operated manually.

The plantation journals for the nurseries and stock registers of seedlings were also not maintained. In absence of these, the survival of the seedlings raised and actual achievement of the plantations carried out could not be assessed. The DFO stated (August 2017) that the site at Lumsohpetbneng was rocky and pine covered and this adversely affected the survival of the plantations. Failure of the DFO to take this into account for site selection resulted in unfruitful expenditure of ₹ 6 lakh on plantations.



Fig 5.14 Non-functional Mist Chamber at Umkhuti Nursery

In short, after an expenditure of ₹ 3.39 crore⁴⁶, the Department had one partly functional tissue culture lab, two in-operational tissue culture labs and one in-operational seed testing centre. This was, all due to the Department's inability to get

⁴³ Seed drier, Germination cabinet, Seed grading machines

⁴⁴ It does not have water connection from PHE or perennial/ natural source of water.

⁴⁵ Relative humidity is maintained artificially at high level in Mist Chamber through automated control systems. This method results in higher success rate in propagation of hard wood cuttings.

⁴⁶ Expenditure incurred in construction of Seed testing lab was not available.

technicians for running the labs. Without addressing this issue of unavailability of professional persons in a systemic manner. It would cast serious doubts on the feasibility of any future project which requires outside technical expertise. The Department should dedicate sincere efforts to address this matter at planning stage itself.

The Department stated (December 2017) that lack of technical manpower was the main hindrance in making these facilities operational and the Department was taking active steps to solve this issue.

5.4.18 Construction of State Zoo at Umtrew

Twelfth Finance Commission recommended (2005) a grant of ₹ 30 crore for construction of a Zoological Park at Umtrew in Ri-bhoi district and accordingly released ₹ 12 crore (March 2007) to the Department. The objectives for construction of the zoo was *inter alia* to provide conservation, breeding for endangered wild species and provide shelter to wild animals rescued from forests.

After more than 10 years since the release of grant, work on the state zoo had not progressed. The reasons for the delay in construction of state zoo as observed by Audit are as under:

- The master plan for the zoo was to be prepared in June 2008. The Department submitted the plan to the Central Zoo Authority (CZA) in September 2014 and it got approved in December 2014.
- Instead of spending the amount released by the GoI on construction of the zoo, the Department diverted ₹ 8.36 crore in September 2008 to Forest Development Corporation of Meghalaya, which invested these funds in fixed deposits and earned interest on it. FDCML refunded the amount to the Department over a period of next five years. In absence of approved plan, the Department was not in a position to utilize these funds. However, the reason for transferring the funds to FDCML which deprived the Department of the interest earned⁴⁷ was not on record.
- Site identified for the project was not owned by the Department. The Department made a proposal (January 2010) for land acquisition from private parties for construction of the approach road as well as creation of wetland for aquatic animals. However, till date of audit (June 2017), the Department was not able to acquire the land. Importantly, the approach road to the zoo could not be acquired and now a new approach road had been proposed which might require modification in the master plan, consequently further delaying the project.
- The master plan prepared by the Department projected an expenditure of ₹ 92.07 crore over a period of ten years. The Department had not worked out the source of the balance ₹ 62.07 crore. The Central Zoo Authority (CZA), while approving the

⁴⁷ Based on the then prevailing interest rates, the interest earned by FDCML was ₹ 2.29 crore (after Income Tax deductions).

master plan, had laid down that the responsibility of mobilizing the funds was with the State Government. The possibility of the zoo remaining a non-starter on account of not having out the balance funds cannot be ruled out.

The Department intimated (December 2017) that acquisition of remaining 4.01 ha land is under process. Also, the modified master plan with new approach road had been approved by the CZA.

The fact however remained that the project had been marred due to mishandling of the project by the Department.

5.4.19 Lack of manpower

The WL divisions were responsible for checking wildlife illegalities in the entire State. The Department had created five beat offices only in KH Div. No beat offices were established in GH and JH Divisions, which had the highest density of RF. In case of the beat offices in KH, it was observed that the beat office at Riangdo under Nongstoin Range, an area prone to elephant crossings, was being manned by one muster roll staff.

Availability of manpower (including muster roll) in the ranges to check wildlife illegalities ranged from one person for every 67 sq. km. (Garo Hills) to one person for every 159 sq. km (Jaintia Hills) (*Annexure XIII*). DFOs have time and again cited their inability in effectively performing their duties due to shortage of manpower available with them. DFO, JH WL Div. communicated to APPCF (June 2015) that the staff strength of the Division remained the same even after creation of Narpuh WL sanctuary. DFO, KH WL Div. wrote that staff posted in ranges was being utilized for other activities such as supervision of departmentally managed construction works, *etc.*, in addition to patrolling duties for checking wildlife illegalities. The inadequacy of manpower was reflected in the poor reporting of offence cases across all divisions and loss of revenue due to smuggling of forest produce.

The tissue culture labs and GIS lab lacked qualified technical staff for managing them. There was no full-time veterinarian in the animal rescue centre.

The Department while accepting (December 2017) the facts stated that review of the existing organisational setup was under process. Proposal for creation of additional posts of frontline staff had been submitted to GoM.

5.4.20 Communication devices

To monitor and protect the forest areas from forest offences, constant communication between the ranges, beats and patrol parties linked with the Divisional Headquarters is essential.

- The Department procured Very High Frequency (VHF) wireless and High Frequency (HF) wireless sets and other communication devices at a cost of ₹ 49.43 lakh between November 2012 and January 2017. However, the repeater

stations and base stations which were required to provide signal/frequencies for communication were not created and license for use of these equipment were also not obtained. As a result, the wireless devices procured by the Department remained unutilized and consequently, due to non-use, some of the HF wireless sets and equipment had become non-functional.

- The access road to the repeater stations was tough, rendering it difficult to restore the stations in case of breakdown. The site selection for the stations was poor as there was no signal transmission from the station to Territorial/Wildlife Divisions. Audit also observed that no forest official had been deployed to look after the repeater stations.

5.4.21 Arms & ammunition

Arms & ammunition were procured by the Forest Department in order to equip the forest officials for checking forest offences and act as a deterrent to the miscreants.

- Most of the guns were lying idle since guns could not be handed over to casual employees (around 135) who mainly perform patrolling duties. Only basic training for arms was given to the foresters.
- In JH WL Div., no ammunitions were provided and hence the arms could not be issued to the ranges. The same was neither requisitioned for by the division nor procured and issued to the division by the PCCF.
- Only in KH WL Div., arms and ammunition were issued to the ranges.

Thus, the ranges in these divisions were ill-equipped to check forest offences during exigencies.

Internal Control System

Internal controls are safeguards that are put in place by the management to obtain assurance that its operations are proceeding as planned. Forest Department was entrusted with twin responsibilities of conservation of forest resources and maximization of Government revenue. Hence, it was imperative that the Department had robust internal controls in place.

Audit carried out an assessment of the internal controls of the Forest Department during the course of PA. The findings have been reported in the ensuing paragraphs.

5.4.22 Monitoring and supervision at apex level

The Department did not have an efficient monitoring and control mechanism by ways of which the activities of the field offices can be examined. The role of the management was merely limited to aggregating working plans received from field offices, disbursal of grants to them against sanctioned schemes and collecting utilisation certificates of such grants. Management did not assess the performance of field offices against the targets set.

5.4.22.1 *Management Information System (MIS)*

A comprehensive MIS provides for easy accessibility to key information from the field offices at regular interval which serves as input for effective planning and monitoring the performance of the Department. It was a means by which an organization's resources are directed, monitored and measured.

Audit observed that the Department did not have a system in place for obtaining periodic information from the field offices. This practice went down to the level of DFOs. For every information, directorate would write to DFOs and DFOs to ROs and so on. Consequently, the field offices themselves did not maintain records for vital information. The Department lagged proactive approach in planning and there were inordinate delays in aggregating information when required.

➤ *Key information not available*

It was observed that the following information were not available with the Department and could not be furnished to audit.

- Progress of offence cases in civil courts.
- Quantity of timber removed from ADC controlled forests.
- Number of illegal/legal sawmills operating in Khasi Hills Division.
- Source of timber for illegal sawmills and details of timber being sold in retail outlets in the State
- Details of encroachment prior to October 1980.
- Royalty and cess collected by Mining Department from non-mining/areas and details of limestone being transported outside the State through mining checkgates.
- Habitat demarcation of endangered species in the State.

In the absence of such information, the Department could not effectively tackle the menace of illegal felling and removal of timber or protect its revenue interests as could be seen in the previous paragraphs.

➤ *Submission of incorrect information by field offices*

In response to an audit query, the DFOs, Jaintia and Garo Hills territorial divisions furnished data on encroachment from October 1980 to March 2012, wherein the encroachment in Reserved Forests was shown as 348.07 ha. Audit, however, observed from the encroachment records, that the total encroachment in the two divisions during the same period was 8597.15 ha. The two divisions thus provided incorrect information as the same was not available in the divisions.

Submission of incorrect information by field offices casts aspersion on the quality of data maintained by the field offices and submitted to the GoM and Central Agencies.

➤ *Action taken on media reports*

During the period from 2012-13 to 2016-17, atleast 15 incidents⁴⁸ on various illegalities were reported in media. Audit observed that the Department did not have a procedure in place to verify the contents of these reported cases. No status report on action taken was available on record. In absence of such mechanism, the higher authorities were not in position to monitor the performance of field offices. Also, Audit could not verify the action taken by the field offices.

5.4.22.2 *Supervision by senior officers*

The Department did not have any system of periodic visits by senior officers to the field offices. During the audit period, details of field inspection carried out by the CFs or the PCCF were not made available to audit. Consequently, the management was not in a position to verify the ground status of the implementation of various schemes.

Monitoring of court cases was not done after filing the cases and status of arrear revenue collection, records of field patrolling by beat officers *etc.* were not collected. No action was taken to improve departmental performance in these aspects.

There were no targets for the DFOs and no means to appraise their performance *vis-à-vis* the targets set. In cases of affected forests due to encroachment and operation of illegal saw mills in Jaintia Hills and Garo Hills, the management did not monitor the progress made by the DFOs to clear encroachment or close down saw mills.

5.4.23 *Lack of control over field offices*

Audit observed that the Forest Department exercised little control over the functioning of field offices. Field offices (DFOs) also failed to monitor the functioning of the ranges, the beat offices and the checkgates. Inconsistencies noticed in the functioning of the Forest Department due to weak management controls over the field offices are discussed below.

➤ *Under-reporting of transported limestone by checkgates*

The Forest Department had set up check post at all major exit points of the State in order to prevent unauthorised transport of forest minerals without payment of royalty. However, there is no system in place in the Department to obtain monthly/periodic reports of transport of forest produce through the checkgates and to cross-check it with the records of other departments.

Audit observed that between April 2012 and March 2017, four⁴⁹ forest checkgates recorded transport of 18.73 lakh MT of limestone. Audit cross-verified the data with that of Mining Department's and Customs Department's checkgates, situated in the same locations as the forest checkgates. It revealed that during the same period, 163.22 lakh MT⁵⁰ of limestone was transported through the checkgates.

⁴⁸ Illegal Mining (6), Illegal felling (6), Poaching (1), Forest Fire (1), *Jhumming* (1)

⁴⁹ Umkiang, Dawki, Shella Bazar and Bholaganj.

⁵⁰ Mining checkgate record in case of Umkiang (2.01 lakh MT) and Customs checkgate in case of Dawki, Bholaganj and Shella Bazar (161.21 lakh MT).

In the absence of suitable control and monitoring mechanism, the four forest checkgates under-reported transportation of 142.29 lakh MT of limestone which resulted in loss of revenue to the tune of ₹ 99.49 crore⁵¹.

The Department needs to obtain information periodically from other departmental checkgates to keep the instances of under-reporting in check. Additionally, the Government may also consider setting up of integrated checkgates for taxation, forest, mining, transport departments *etc.*

The Department while accepting the audit observation (December 2017) stated that the issue of under-reporting was being pursued.

➤ **Timber lots missing from department's stock**

The timber before being handed over to the FDCML, was kept in the custody of the concerned ROs under the divisions. Audit observed that the FDCML reported to the DFO, GH Territorial Div. (September 2014 and June 2015) that 36 lots of timber measuring 105.59 cu. m. valued at ₹ 5 lakh which had been allotted to the FDCML in 2014 were missing from the Southern Range. However, the DFO did not take any action against the officials concerned for dereliction of duty. The fact that the DFO was unaware of the quantity in stock indicated poor monitoring in the Department.

5.4.24 Conclusion

Audit observed a number of deficiencies in the way the Department had been functioning. Audit observed encroachment in the protected forests, illegal felling of timber and illegal extraction of minerals were widespread. The effects of indiscriminate exploitation of forest resources were being felt by locals and it compelled the courts to intervene and direct extreme measures *e.g.* ban on coal mining, extraction of sand from river beds, and felling of timber *etc.*

There were large number of incidents of human-animal conflict, death of elephants due to electrocution and the Department was unable to secure Elephant habitat and corridors. The Department had failed to discharge some of its core functions related to protection and conservation of forests and wildlife. Manpower available with the divisions was inadequate to detect and control illegal activities. Facilities like Tissue culture labs, Seed testing lab were barely operational. The Department has not been able to make progress in construction of State Zoo after ten years of releasing of funds.

The Department suffered revenue loss of ₹ 115.68 crore due to absence of suitable arrangement for speedy disposal of timber, duality of royalty collection on limestone and delay in communication of revised royalty rates. There was little monitoring over the activities of field offices and no co-ordination with other departments for sharing of information, which resulted in massive under-reporting of overloading by checkgates.

⁵¹ 84.37 lakh MT x ₹ 63 per MT (old rate) plus 57.92 lakh MT x ₹ 80 per MT (new rate).

5.4.25 Recommendations

- Forest Department should actively interact with Police and Civil administration for exchange of information and coordination to limit incidents of illegal mining, illegal felling of timber and encroachment.
- The Department might speed-up the process of acquiring land in elephant corridors and restrict the construction works to mitigate man-animal conflicts. The Department should ensure that Meghalaya Electricity Corporation incorporated suitable design modifications in the electric poles in such corridors.
- The Department should ensure that adequate staff is deployed for field patrolling to check wildlife irregularities. Additionally, it may account for availability of technical personnel while assessing the feasibility of those projects for which outside technical expertise would be required for daily operations.
- The Department may establish a mechanism to obtain information periodically from other departments so that it may act as an effective control to minimize instances of under-reporting by checkgates. Additionally, the Government may consider setting up of integrated checkgates for taxation, forest, mining, transport departments *etc.*