

Chapter VII : Management of Manpower Resources

7.1 Shortage of Manpower

MEs/AMEs and Foremen are the key officials of the Department to check illegal mining and prevent revenue leakage. According to the information available on departmental web-site, duties of ME/AME and Foreman are given here under:

Duties of ME/AME: He is responsible to check that the lease/license conditions are implemented properly; mineral properties are worked properly by the lessee from the point of view of eco-friendly mining, mineral conservation, safety and productivity *etc.* and shall see that mineral properties are prospected properly in case of licensed areas. Further, he shall carry out inspection of mines as per norms. He shall keep proper watch and take suitable measures to check unauthorised mining and leakage of revenue and also inspect *nakas* and check posts as well as mineral stocks of processor, manufacturer, dealer or and trader or any permit holder in his jurisdiction as per provisions.

Duties of Foreman: He shall carry out inspection of mines and quarries and shall see whether the terms of agreement are being fulfilled and shall make report of inspection to the concerned ME/AME. He shall keep watch on the mining activity in the area and whenever, any unauthorised work is detected he shall report the matter immediately to ME/AME concerned. He shall prepare lease area plans and maps *etc.* He shall check that there is no leakage of revenue in his area and shall inspect the *nakas* and check posts and mineral carrying vehicles as required. He shall also inspect mineral stocks of processor, manufacturer, dealer, trader within his jurisdiction. He shall also suggest the sites of new check posts/*nakas* which may be additionally required to check leakage of revenue. He shall carry out demarcation work of the lease hold area, granted, renewed or disputed areas. He shall inspect the areas and make report to the ME/AME as directed by him.

Scrutiny of information provided by the selected offices disclosed that there was shortage of manpower in the cadre which were necessary to check illegal mining and prevent revenue leakage *i.e.* ME/AME and Foreman. The position of sanctioned and working strength of concerned officials is as given in **Table 7.1:**

Table 7.1
Details of working and sanctioned strength of key officials

Year	ME/AME			Foreman		
	Sanctioned	Working	Vacant (Percentage)	Sanctioned	Working	Vacant (Percentage)
2015-16	13	11	2 (15)	17	13	4 (24)
2016-17	13	9	4 (31)	17	10	7 (41)
2017-18	13	8	5 (38)	17	10	7 (41)
2018-19	13	7	6 (46)	17	8	9 (53)
2019-20	13	10	3 (23)	17	8	9 (53)

The above table depicts that there was acute shortage of officials ranging between 15 to 53 *per cent.*

Shortage of manpower had an adverse effect on control of illegal mining activities as discussed in Paragraph 2.4 wherein it was mentioned that percentage of revenue to the total revenue raised has a decreasing trend while number of cases of illegal mining/transportation/storage showed a significantly increasing trend.

The Government replied (February 2022) that restructuring process of the Department was under progress and after completion of the process, action for adjustment/creation of posts would be taken up.

7.2 Working of Vigilance wing

Department has an exclusive Vigilance wing to check and control illegal mining activities. There are 32 divisions since August 2013 for the purpose of vigilance. These divisions were headed by MEs/AMEs. According to information available on departmental web-site, following duties were assigned to these ME/AMEs:

- He shall carry out intensive checking against unauthorised mining or unauthorised excavation and removal of mineral/minerals.
- Inspect the Departmental check posts in his jurisdictions frequently to check leakage of Government revenue.
- Check stocks of minor minerals and ensure that proper records are maintained by the Processor/Manufacturer/stockiest as per the provisions of the Mines & Minerals (Development & Regulation) Act 1957 of Rajasthan Minor Mineral Concession Rules, 1986.
- Inspect the mining areas wherever there is any doubt about working outside the lease hold areas.
- Check demarcations, enquire into the boundary disputes between the adjoining lessees, as and when such work is assigned to him.
- Conduct frequent checking of vehicles carrying mineral in his jurisdiction particularly where there are possibilities of evasion of royalty.
- Perform any other work assigned by the competent authorities.

All these duties besides the administrative duties were also assigned to division offices having jurisdiction over the same area. Audit compared the working of MEs/AMEs of Vigilance offices and MEs/AMEs of selected Division offices having jurisdiction over same area. Results of comparison revealed that Vigilance offices registered 956 cases of illegal mining activities during the period 2015-16 to 2019-20, whereas division offices registered 2,434 cases in the same period. These are given in the table below:

Table 7.2: Comparative statement of working between division and vigilance offices

Name of office	Number of <i>Panchanamas</i> made by division offices and vigilance offices												Per cent (13/12 * 100)
	2015-16		2016-17		2017-18		2018-19		2019-20		Total		
	Div*	Vig#	Div	Vig	Div	Vig	Div	Vig	Div	Vig	Div	Vig	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Neem Ka Thana	46	5	18	6	20	5	35	6	58	64	177	86	48.58
Sikar	88	17	63	3	55	0	75	34	110	99	391	153	39.13
Kotputli	113	23	188	48	70	24	249	96	212	28	832	219	26.32
Alwar	150	166	159	74	164	64	178	41	146	62	797	407	51.06
Makrana	1	41	0	22	62	13	99	10	75	5	237	91	38.39
Total	398	252	428	153	371	106	636	187	601	258	2434	956	39.27

* **Div** : Division Office # **Vig** : Vigilance office

Analysis of the above table disclosed that ME/AMEs of Vigilance wing had performed their assigned duties far behind the regular Division offices except in few cases as the overall *Panchnamas* made by vigilance offices is only 39.27 per cent of the *Panchnamas* made by division offices.

Further, it is also pertinent to mention here that despite having an exclusive vigilance wing in the Department; trend of illegal mining activities was increasing during the same period. The creation of offices with same duties/functions without any significant difference shows that the available manpower was not utilised to its full extent.

The Government replied (February 2022) that restructuring process of the Department (including Vigilance Wing) was under progress.

7.3 Training and use of latest technology

It is a fact that training is important because it represents a good opportunity for employees to grow their knowledge base and to improve their skills to become more effective in the workplace.

7.3.1 Lack of training

Scrutiny of information provided by the selected offices revealed that training on latest technology to check illegal mining activities was given to a few officials of the Department. Position of training to the officials of the selected units is given in the **Table 7.3**:

Table 7.3

Details showing lack of training

Year	Number of training organised for latest know-how <i>i.e.</i> remote sensing data, GIS technology, drone survey <i>etc.</i>	Number of persons trained
2015-16	0	0
2016-17	1	2
2017-18	0	0
2018-19	1	1
2019-20	0	0

Out of selected 11 offices, officials of two offices only had been provided training regarding the latest technology. Further, it was noticed that the training of use of latest technology *i.e.* remote sensing data, GIS technology, drone surveys was not given to any of the officials posted in the remaining selected offices.

Thus, lack of training in the latest technology resulted in non-identification of illegal mining activities in the selected Division offices with the help of technology.

The Government replied (February 2022) that action would be taken for imparting training of the departmental officials.

7.3.2 Laser-based measuring technology and mapping tools

Laser technology has an array of laser-based measurement tools that make mining tasks easier and safer. A laser-based profiling system can take accurate measurements and calculate bench heights as well as minimum and optimum burdens.

A document regarding comprehensive computerisation of mineral administration of Department of Mines and Geology, Karnataka envisaged use of LiDAR Technology (light detection and ranging technology). According to the document, LiDAR scanning is far safer than conventional surveying methods and takes only a fraction of the time. The speed at which data is collected minimizes delays to the mining schedules and processes. The LiDAR solution is ideal for finding differences between two time periods to accurately monitor the changes in the terrain. Data from the LiDAR solution dovetails cleanly into existing data workflows to produce deliverables including engineering drawings, as-built, contours and volumes.

However, such instruments were not procured by the Department to use in field offices. During JPV it was observed that Department used manual *Feeta* (Tape measure) for measurement of length, width and height. Measurement of mineral excavated in hilly areas where benches were also not made is a difficult task and it takes a lot of time besides incorrect measurement leads to avoidable litigations.

The Government replied (October 2021) that equipment for use of modern technology *i.e.* drone, laser and GIS would be procured/outsourced. Thereafter, it was replied (February 2022) that drone survey was done to identify illegal mining in one district *i.e.* Nagaur.

7.4 Summary of findings

The Department has a vigilance wing to curb illegal mining activities and to check leakage of revenue. During the period 2015-16 to 2019-20, vigilance offices identified 956 cases whereas division offices having jurisdiction on the same area, identified 2,434 cases of illegal mining activities besides their regular work. It indicated that performance of vigilance wing was not up to the mark and purpose of establishment of specialized wing for identification of illegal mining activities was also defeated to that extent. Training of latest technology to check illegal mining activities was given to a few officials of the Department. Latest instruments were not procured by the Department for use in field offices.

7.5 Recommendations

The Department may:

- 1. review the assignment of duties to the officers of division offices and vigilance offices to avoid duplication and ensure optimum utilisation of their abilities and take measures to strengthen functioning of the Vigilance wing and*
- 2. adopt the latest technology to measure volume of minerals excavated.*