

Chapter II

Detailed Compliance Audit on Revenue Collection and Control of Mining Activities of Minor Minerals

CHAPTER - II

INDUSTRY, COMMERCE AND ENTERPRISES DEPARTMENT AND LAND & LAND REFORMS & REFUGEE RELIEF AND REHABILITATION DEPARTMENT

2 Detailed Compliance Audit on Revenue Collection and Control of Mining Activities of Minor Minerals

2.1 Introduction

Mineral resources provide the necessary base for industrial development. Due to its varied geological structure, West Bengal is endowed with a wide variety of mineral resources and is one of the mineral rich States in the country. The Central and State Governments are jointly responsible for the development of the mining sector and mineral exploitation in India. Parliament had enacted the Mines and Minerals (Development and Regulation) (MMDR) Act, 1957, which lays out the basic legal framework for regulation of mines and development of minerals in the country. Under the provisions of the MMDR Act, 1957, minerals are broadly divided into two categories, viz. major minerals, such as coal, iron ore *etc.* and minor minerals, such as stone, gravel, ordinary earth, ordinary sand, china clay, fire clay, quartz *etc.* According to Section 3(e) of the MMDR Act, 1957, “minor minerals” means building stones, gravel, ordinary clay, ordinary sand (other than sand used for prescribed purposes) and any other mineral which the Central Government may, by notification in the Official Gazette, declare to be a minor mineral. As per the West Bengal Minor Minerals Rules (WBMMR), 2002, 23 varieties of minor minerals are available in the State.

Under Section 15 of the MMDR Act, 1957, the State Government is empowered to frame rules for grant of mineral concessions for minor minerals, including fixing and collection of rent, royalty, fees, dead rent, fines or other charges.

The State Government enacted the WBMMR, 2002, for regulating the grant of quarry leases, mining leases, and other mineral concessions, in regard to minor minerals. It also enacted the West Bengal Minor Mineral Concession (WBMMC) Rules, 2016, for regulating the (a) grant of short-term mining licences¹²², (b) prospecting licence-cum-mining leases¹²³ and (c) mining leases¹²⁴ in regard to the minor minerals in the State. The West Bengal Minor Mineral (Auction) (WBMMMA) Rules, framed in 2016, aim to initiate an auction process for grant of mining leases, in areas containing notified minor minerals.

¹²² Short-term mining licences:- means a licence granted under Chapter IV of these rules to-extract and remove any minor mineral in specified quantity from a specified area for a specified period on prepayment of royalty, cesses and other statutory dues.

¹²³ Prospecting licence-cum-mining leases:- means a two stage concession granted for the purpose of undertaking prospecting operations followed by mining operations.

¹²⁴ Mining leases: - means a lease granted for the purpose of undertaking mining operations, and includes a sub-lease granted for such purpose.

Important minor minerals, found in West Bengal, are Granite¹²⁵, Blackstone¹²⁶, Talc & Steatite¹²⁷, Sand¹²⁸, Dolomite¹²⁹, Quartz & Feldspar¹³⁰, China Clay & Fire Clay¹³¹. A significant reserve of sand is available on the river beds of Damodar & Ajoy, in the western parts of the State.

Receipts from minor minerals in the State, comprise of royalty¹³², dead rent¹³³, surface rent¹³⁴, water rate¹³⁵, price of minerals¹³⁶, application fee¹³⁷ for lease/permit and bid amount¹³⁸ etc. In addition, four types of cess, i.e. Rural Employment (RE) Cess, Road Cess, Public Works (PW) Cess and Primary Education (PE) Cess, are also recovered from the holders of mining leases.

During 2017-22, ₹ 2,256.94 crore were realised from mines & minerals in the State.

2.2 Organisational Structure

In West Bengal, the Land & Land Reforms and Refugee Relief & Rehabilitation (L&LR and RR&R) Department, grants Long Term Mining Leases (LTML) and Short Term Mining Leases (STML), for Sand, Boulder, Gravel, Morrum, Earth etc. It is also entrusted with the assessment and collection of royalty, cess, dead rent etc.

The Industry, Commerce and Enterprises (IC&E) Department grants mining leases in respect of Stone, Granite, China Clay, Fire Clay etc. and assesses the royalty and dead rent thereon. Collection of revenue, in respect of these minor minerals, is carried out by the L&LR and RR&R Department. Notifications regarding the rates of royalty, rent etc. of minor minerals, are also issued, from time to time, by the IC&E Department.

¹²⁵ Found in Purulia and Bankura.

¹²⁶ Found in Birbhum, Purulia and Bankura.

¹²⁷ Found in Darjeeling.

¹²⁸ Found across the state.

¹²⁹ Found in Purulia.

¹³⁰ Found in Purulia, Bankura, Jhargram and Birbhum.

¹³¹ Found in Birbhum, Bankura and Purulia.

¹³² 'Royalty' is the value of any mineral extracted or removed or consumed from the leased area at the rate as notified, from time to time by the State Government. The amount payable as royalty is, therefore, determined by the quantum of minerals removed or consumed by the lessee, in proportion to the quantity extracted.

¹³³ 'Dead rent' is the minimum amount payable in a year, by the person granted a mining lease, irrespective of whether he operated/could operate the area fully or partly, as per rule or agreements of a mining lease.

¹³⁴ The amount that the lessee shall pay at the fixed rates, for the surface area used by him, for the purpose of the mining operations.

¹³⁵ The amount that the lessee shall pay, at fixed rates, for the surface area used by him, for the purpose of the mining operations.

¹³⁶ Whenever any person extracts, without any lawful authority, any mineral from any land, the State Government may recover, from such person, the mineral so raised, the price thereof fixed at 1.5 times of the amount of royalty of minerals.

¹³⁷ An application fee, for issue of a short-term mining licence, is to be submitted to the District Authority, in the prescribed Form, accompanied by a challan, showing the deposit of the non-refundable amount.

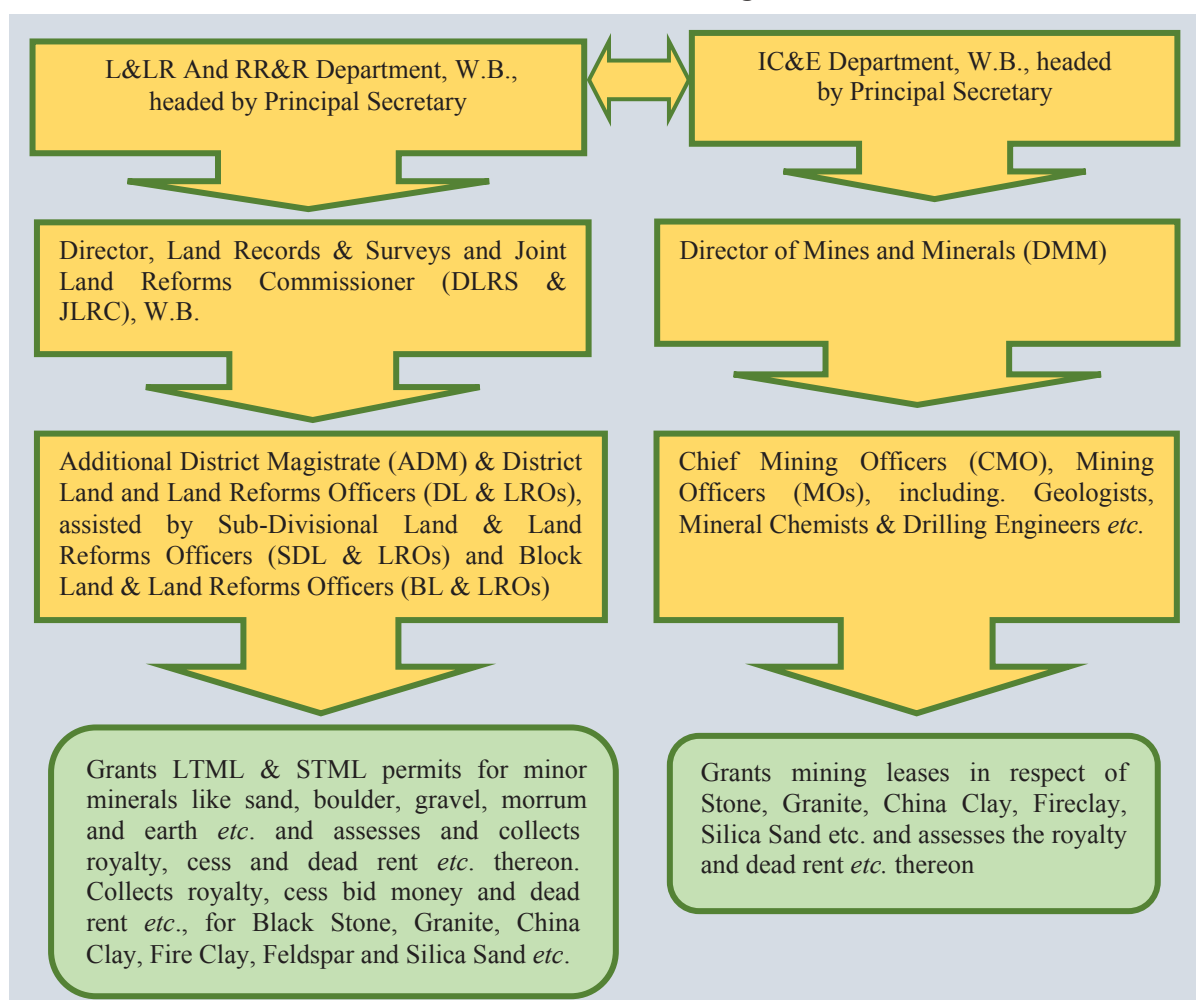
¹³⁸ Amount quoted on and above the reserve price, by the successful bidder.

As per the WBMMA Rules, the grant of Mining Leases, for exploitation of minor minerals, was to be made through competitive bidding and rules were to be framed, by the IC&E Department, for conducting competitive bidding, through a notification, for determination of the reserve price of the mineral block.

The State Government introduced (July 2021) the Sand Mining Policy-2021, which intends to govern the excavation, transportation, storage, sale and consumption of sand. In order to effectively achieve the objectives of the Policy, the West Bengal Mineral Development and Trading Corporation Ltd. (WBMDTCL) (a fully owned undertaking of the Government of West Bengal), was established as the designated agency.

Both departments are under the administrative control of respective Principal Secretary/Secretary, who are assisted by Directors and District level, Sub-Division level and Block Level Officers, as shown in **Chart 2.1**:

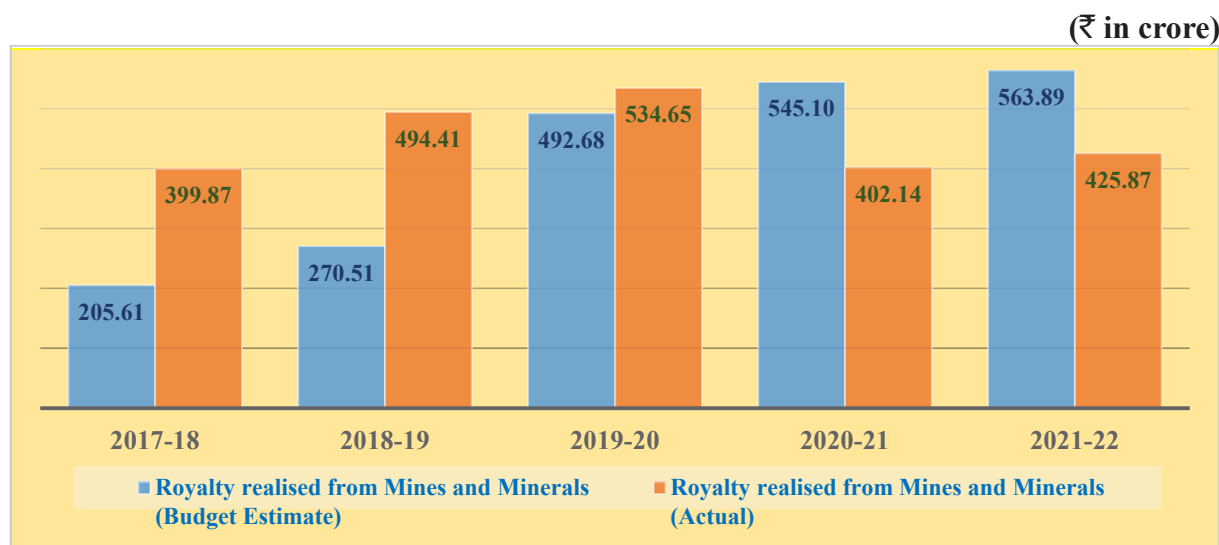
Chart 2.1: Organisational set-up for the Administration of Mining operations in West Bengal



2.3 Trends of Revenue

Year-wise budget estimates, *vis-à-vis* the actual receipts from mines and minerals, during financial years (FYs) 2017-18 to 2021-22, are shown in **Chart 2.2**.

Chart 2.2: Budget Estimates vis-a-vis Actuals



The chart depicts that the actual royalty, realised from mines & minerals was more than the Budget Estimates (BEs), during FY 2017-18 to FY 2019-20. However, during FYs 2020-21 and 2021-22, the actual royalty was less than the Budget Estimates. The Department had not furnished reply for the reason for deviation of actual collection of royalty with the BE, though called for (April 2023 and June 2023) in Audit.

2.4 Audit Objectives

The Detailed Compliance Audit (DCA) was conducted to ascertain whether:

- The system of levy and collection of royalty, rent, fees, penalty *etc.*, for minor minerals, was effective, adequate and in conformity with the provisions of the extant Acts and Rules;
- The provisions of the Act, Rules and Departmental instructions were adequate, for identifying the extent of illegal mining and curbing activities which promote illegal mining;
- Effective controls and system were in place, for addressing the socio-economic concerns of the persons affected by mining;
- The internal control mechanism and monitoring mechanism, in place, was adequate & effective, for preventing leakage of revenue and whether there was a mechanism for inter-departmental cross-verification of data/information;
- The Environmental Acts were adhered to, in the operation of mining leases and steps were taken to minimise the socio-economic and environmental effects of illegal mining in the State;
- Sustainable consumption and production patterns were followed, which carrying out mining activities (SDG 12).

2.5 Audit Criteria

Receipts from minor minerals are governed under the following Acts and Rules, which constituted the audit criteria:

- Bengal Public Demand Recovery (BPDR) Act, 1913, Government of West Bengal

- Mines and Minerals (Development and Regulation) Act, 1957, Government of India (GoI)
- Environment Protection (EP) Act, 1986, GoI
- West Bengal Minerals (Prevention of Illegal Mining, Transportation and Storage) (WBMPIMTS) Rules, 2002, Department of Industry, Commerce & Enterprises, Government of West Bengal
- West Bengal Minor Minerals Rules (WBMMR), 2002, Department of Industry, Commerce & Enterprises, Government of West Bengal
- Environment Impact Assessment Notification, 2006, as amended from time to time, issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC), GoI.
- Minerals Concession (MC) Rules, 2016, GoI
- West Bengal Minor Minerals (Concessions) (WBMMC) Rules, 2016, Department of Industry, Commerce & Enterprises, Government of West Bengal
- West Bengal Minor Minerals (Auction) (WBMMMA) Rules, 2016, Department of Industry, Commerce & Enterprises, Government of West Bengal
- West Bengal District Minerals Foundation (WBDMF) Rules, 2016, Department of Industry, Commerce & Enterprises, Government of West Bengal
- Mineral Conservation and Development (MCD) Rules, 2017, GoI
- West Bengal Sand (Mining, Transportation, Storage and Sale) Rules, 2021, Department of Industry, Commerce & Enterprises, Government of West Bengal
- West Bengal Sand Mining Policy, 2021, Department of Industry, Commerce & Enterprises, Government of West Bengal
- Mining Plans, Environmental Clearance, Consent to Operate, issued by the State Environment Impact Assessment Authority (SEIAA) and West Bengal State Pollution Control Board (WBSPCB)
- Guidelines/ Manual/ instructions/ Circulars/ Orders, issued by the L&LR and RR&R and IC&E Departments.

2.6 Audit Scope

The DCA was conducted through test-check of records of the IC&E Department, Directorate of Land Records & Survey (DLRS), Directorate of Mines & Minerals (DMM), seven¹³⁹ selected districts, Land & Land Reforms Officers (DL&LROs) and office of the Chief Mining Officer (CMO), Asansol, four¹⁴⁰ Sub-Divisional Land & Land Reforms Officers (SDL&LROs) and 25¹⁴¹ Block Land & Land

¹³⁹ Bankura, Birbhum, Kalimpong, Paschim Bardhaman, Purba Bardhaman, Purba Medinipur and Purulia.

¹⁴⁰ Bankura-Khatra, Bishnupur & Bankura Sadar; Birbhum – Birbhum Sadar.

¹⁴¹ Bankura-Barjora, Bishnupur, Khatra & Saltora; Birbhum- Bolpur, Md. Bazar, Nalhati-I & Rampurhat-I; Paschim Bardhaman- Andal, Jamuria, Kanska, Ranigunj & Salanpur; Purba Bardhaman- Bardhaman-II, Galsi-II, Jamlapur, Khandagosh & Mongolkot; Purba Medinipur- Nandigram-III, Panskura-II, Ramnagar-I & Ramnagar -II; Purulia- Barrabazar, Manbazar-I & Raghunathpur-I.

Reforms Officers (BL&LROs), between April and October 2022, covering the period from FY 2017-18 to FY 2021-22. The selection of these seven districts was done by adopting the stratified random sampling method, using IDEA software. The four SD&LROs and 25 BL&LROs were selected on the basis of the year-wise revenue collection of Minor minerals.

The IC&E Department had leased out 74 *in-situ* mines¹⁴², in four selected districts, which were test-checked in audit. There are no *in-situ* mines in three selected district. Further, L&LR and RR&R Department had e-auctioned 811 sand blocks, in seven selected districts and issued Letters of Intent (LOIs) to 587 bidders, which were also test-checked in audit.

2.7 Audit Methodology

Audit examined records pertaining to the mechanism of assessment and collection of royalty and other dues, in the selected field offices. In addition, Audit analysed documents related to implementation of the Environment Impact Assessment Notification, 2006, in mining, and verified compliance of the policies, notifications, orders and circulars, issued during the period.

Geo-spatial studies were conducted (March 2023) at three¹⁴³ mining sites, with an expert team from the Centre for Aerospace Research, MIT Campus, Anna University, Chennai, in the presence of State Mining Officials of two¹⁴⁴ districts, to ascertain the mapping/verification of allotted mining areas/operations, as also to estimate the volume of minor minerals excavated in the State, using UAV¹⁴⁵, DGPS¹⁴⁶ Instrument, Bathymetric¹⁴⁷ and Geographical Information System (GIS)¹⁴⁸ technology.

The three mining sites, for the Geo-spatial study, were selected based on mining activities beyond the approved leased areas, as per historical imagery between April 2017 and September 2022, using ‘google earth pro’ software.

Entry Conferences were conducted with the Secretary of the L&LR and RR&R Department and the Secretary of the IC&E Department, in August 2022, in which the audit objectives, audit criteria, scope and methodology of audit, were discussed. Exit Conference was conducted with the L&LR and RR&R Department on 9 June 2023 and with the Pr. Secretary of the IC&E Department on 26 June 2023.

¹⁴² *In-situ mining, also known as solution mining, involves leaving the ore where it is in the ground and using liquids that are pumped through it, to recover the minerals out of the ore, by leaching.*

¹⁴³ *Bibhas Kumar Das, Brindabanpur Fire Clay & China Clay Mine, at Bankura district; M/s Todi Minerals Pvt. Ltd., Granite/ Stone Mine, at Purulia District & Mr. Arun Saraf, Gee Dee Mining Pvt. Ltd. Sand mining, at Purulia district.*

¹⁴⁴ *Bankura and Purulia.*

¹⁴⁵ *‘Unmanned Aerial Vehicle’ (UAV) is a generic aircraft, designed to operate without a human pilot on-board. It can be used for mapping, by combining aerial images and traditional survey techniques and it can act as an alternative for aerial mapping technologies.*

¹⁴⁶ *‘Differential Global Positioning System’ (DGPS) is an enhancement to the Global Positioning System (GPS), which provides improved location accuracy.*

¹⁴⁷ *‘Bathymetry’ is the study of the “beds” or “floors” of water bodies.*

¹⁴⁸ *A ‘Geographic Information System’ (GIS) is a computer based system, for capturing, storing, checking and displaying data related to positions on the earth’s surface.*

Audit Findings

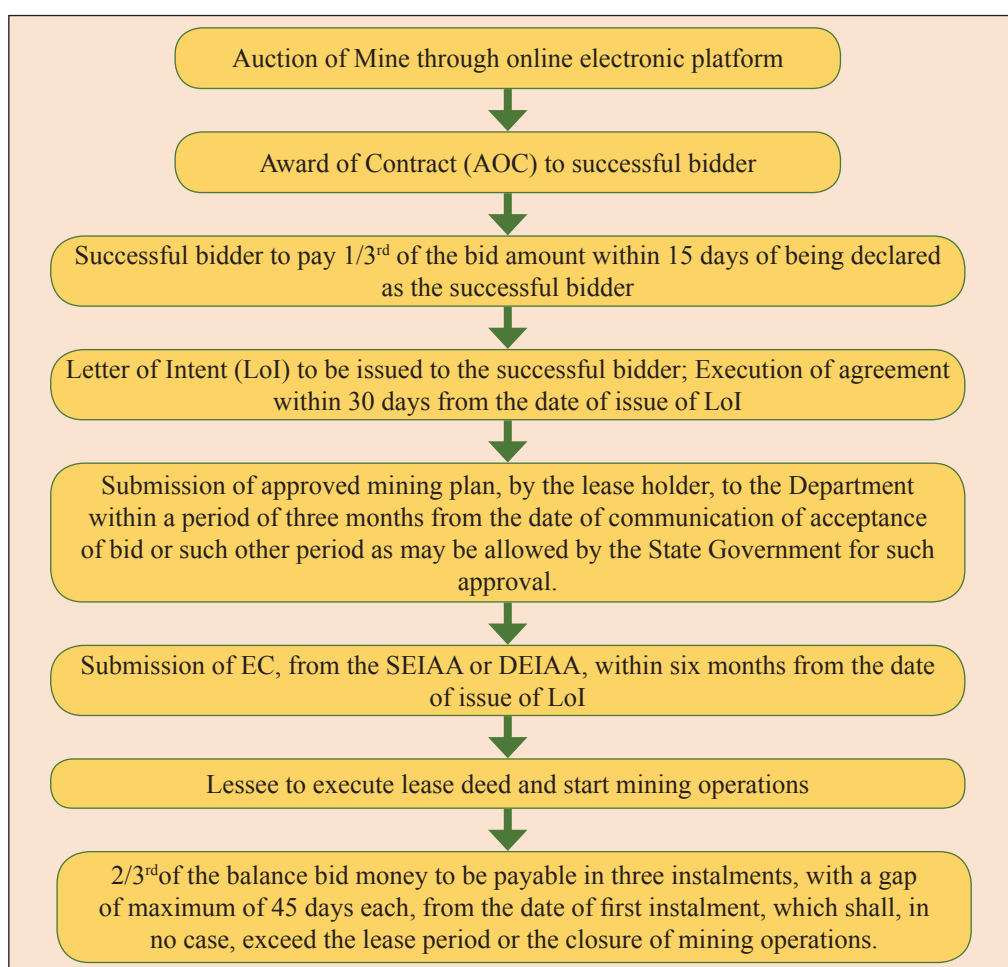
2.8 Management of Mining Leases

A Mining Plan is a pre-requisite, for grant and renewal of lease/license/working permission, for mining of minor minerals. Under rule 4(2)(b) of the WBMMC Rules, 2016, the State Government shall grant a mining lease, if there is a Mining Plan, as per the guidelines of the Indian Bureau of Mines and the same has duly been approved by the Chief Mining Officer (CMO) or the Mining Officers (MOs) in charge of the respective zones. No holder of a mining lease shall commence or carry out mining operations in any area except in accordance with the approved mining plan. Every Mining Plan must have a Mine Closure Plan. WBMMC Rules, 2016, also contained provisions for protection of the environment; removal and utilisation of top soil; reclamation and rehabilitation of land; precautions against air, water and noise pollution and discharge of effluents *etc.*, during mining operations. Further, MoEFCC, GoI, had also notified (January 2016) the requirement of obtaining prior Environment Clearance (EC) for mining projects concerning minor mineral sand having lease area equal to or less than five hectares (ha).

Under Rule 20 of the WBMMC Rules, 2016, the lessees shall at his own expense, survey and demarcate the area, in terms of the geographic coordinates shown in the Mining Plan, granted under the lease.

A flow chart of the process of auction of minor minerals is given in **Chart 2.3**:

Chart 2.3



2.8.1 Execution of Mining Lease Deed

Execution of the mining lease deed is a critical component of the mining process, as detailed above (in Chart-2.3). Audit observed that, in 73 cases of sand mining, in two selected districts¹⁴⁹, the due dates of execution of the lease deeds were between April 2017 and December 2019. However, the lease deeds had not been executed, for periods ranging from 841 to 1801 days till 31 March 2022. Details of mining lease deeds that had not executed till March 2022, are shown in **Appendix -7**. Audit observed that there is no provision, either in the extant rules or in the LoI, for the course of action to be resorted to, in cases of non-execution of lease deeds.

Good Practice

The Rajasthan MM Concession Rules, 2017, as per Rule 21 *ibid*, provide that, if the bidder fails to execute lease deeds within the prescribed time, the competent authority shall revoke the sanction order and forfeit, premium amount, security deposit and performance security, deposited by the grantee. Further, as per Rule 8(5) of the MM Concession Rules, 2017 of Gujarat, the grant of quarry lease becomes void, if the registration is not executed within 30 days.

Further scrutiny of records revealed that, in these 73 cases, the total annual raising target¹⁵⁰, fixed by the competent authority (DL&LROs), was 31.95 crore cft. As these blocks had not been cancelled and re-auctioned, there had been potential loss of revenue, in the form of royalty¹⁵¹ & cess¹⁵², amounting to ₹ 53.04 crore, annually (**Appendix -7**).

In the Exit Conference L&LR and RR&R Department stated (July 2023) that due to late submission of Environmental Certificates (ECs) lease deeds has not been executed in time. However, the Department would look into the matter for ensuring early submission of ECs.

Recommendation 1:

Government should consider necessary amendments in the WBMMC Rules to ensure that if the successful bidder fails to submit EC within the prescribed period of six months then his contract is cancelled and such mining blocks are re-auctioned to prevent loss of revenue

2.9 Payment of bid money by the successful bidders

2.9.1 Amendment to the WBMMMA Rules, 2016, leading to loss of revenue, in the form of non-recovery of bid money

Rule 10 of the WBMMMA Rules, 2016, prescribed the procedure for grant of mining leases to successful bidders. Rule (10) (1) prescribed that the successful bidder shall pay 1/3 of the bid amount, after being so declared and the payment shall be made within 15 days of declaration of the successful bidder.

¹⁴⁹ Bankura and Birbhum.

¹⁵⁰ The proposed annual production capacity of the mine lease area.

¹⁵¹ Rate of royalty for sand @ 1.51 per cft.

¹⁵² Rate of cess for sand @ 0.15 per cft.

Rule (10) (2) prescribed that the rest of the bid amount (2/3) shall be payable in two equal instalments, before execution of the deed of lease.

However, Rule 10 (2) was amended (May 2017) by the IC&E Department and the amended Rule prescribed that the successful bidders, who have deposited one-third of the bid money, may be allowed to commence mining operations and the lease deed may be executed. The balance amount of bid money (2/3) was payable in three instalments, with a gap of maximum of 45 days each, from the date of the first instalment, which was, in no case, to exceed the lease period or the closure of mining operations.

As a result of the amendment, successful bidders were allowed to commence mining operations/ execute mining deeds, without depositing the full bid amount.

Audit observed that, in 35 cases, in three districts¹⁵³, the successful bidders had paid 1/3rd of the total bid amounts and executed the lease deeds, without depositing the full bid amounts.

Audit further observed that, in 24 out of these 35 cases, the leases had expired between July 2022 and March 2023. However, the balance bid amount of ₹ 10.05 crore of 24 leases, had not been realised (between April 2022 and October 2022, when the Audit was conducted) (as detailed in **Appendix -8**).

Deposit of the full bid amount, prior to execution of the lease deed, is crucial for protecting the financial interest of the Department. **The District authorities (DL&LROs) had failed to realise the balance bid amounts from the concerned bidders, which indicated deficient monitoring.**

Thus, the amendment offered undue advantage to the successful bidders and caused loss of government revenue.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that bid amount of ₹ 2.18 crore had been recovered and Public Demand Recovery cases would be initiated for recovery of balance bid amount where leases had expired.

2.9.2 Realisation of bid money from auctioned sand mining lessees

As per Rule 12 of the WBMM Rules, 2016, simple interest, at the rate of 6.25 per cent, was to be charged, on any payment due to the State Government, for the period of delay, to be calculated on the expiry of 60 days from the date of such payment having become due.

Audit observed that, in 18 cases, in four selected districts¹⁵⁴, the successful bidders had deposited the first instalments of the balance 2/3rd bid amounts, on different dates, ranging between April 2017 and June 2022. These successful bidders were required to deposit the remaining amount within 90 days from the date of deposit of the first instalment. However, they had failed to deposit the amounts within due dates, resulting in short payment, amounting to ₹ 13.09 crore. **The DL&LROs had also failed to impose penalty, for the late payment of these instalments, resulting in loss of interest, amounting to ₹ 3.07 crore (as detailed in **Appendix -9**).**

¹⁵³ Birbhum, Purba Bardhaman & Purulia.

¹⁵⁴ Bankura, Birbhum, Purba Bardhaman & Purulia.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that bid amount of ₹ 4.58 crore had been realised from the sand lessees and instructions would be issued to the concerned DL&LROs for recovery of balance bid amount.

Good Practice

Sub-rules (1) & (4) of Rule 8 of the Gujarat Minor Mineral Concession Rules, 2017, prescribed that the bidders shall submit the first instalment of 20 *per cent*, within the time frame prescribed in the tender document and the second instalment of 80 *per cent* of the upfront payment, within 30 days of payment of first instalment. Further, upon such payment, the Government shall issue a written order for grant of the quarry lease. In the event of the bidder failing to make the second instalment within the prescribed period, an amount, equal to Performance Security shall be appropriated and the LoI shall become void.

Recommendation 2:

The Government should take necessary action against the concerned DL&LROs who failed to ensure collection of full bid amount. It should also consider necessary amendments in the WBMMA Rules, 2016, to ensure that mining operation should start only after execution of lease deed and full bid amount is collected before execution of the lease deed.

2.10 Assessment and Collection of Royalty and other dues

2.10.1 Realisation of royalty & cess from *in-situ* mines

Scrutiny of 28 *in-situ* mining lease files, in two¹⁵⁵ selected districts, revealed that the MOs, of the Birbhum and Purulia Zones had assessed royalty and cess for the mining leases and sent (between June 2020 and August 2022) the details to the concerned ADM and DL&LRO offices, for realisation of dues. Audit observed that, **in five cases, the authorities (DL&LROs) had recovered ₹ 2.41 crore, as royalty & cess, against the assessed amount of ₹ 2.85 crore. The concerned DL&LROs had not initiated action to realise the remaining dues.** This had resulted in non/short realization of royalty and cess of ₹ 44.48 lakh, till September 2022, as shown in Table 2.1.

Table 2.1: Non/short realization of royalty & cess, on *in-situ* mines

(in ₹)

Sl. No.	Details of the Lease	Name of mineral	Royalty & Cess realisable	Royalty & Cess realised	Non/short realisation of royalty & Cess
1.	Mouza- Duberdanga, JL. No.-5, Plot Nos.- 2691, 3366, PS- Gangajalghanti Area- 28.05 acres Dist- Bankura	Black stone	1,74,96,709	1,53,75,580	21,21,129
2.	Mouza- Dawanganj, JL. No. 36, PS- Md. Bazar, PO- N. Jagatpur, Plot No. 58, 62, 63, 73 Dist.-Birbhum, Area 11.70 acres	Black Stone	44,97,500	27,53,684	17,43,816

¹⁵⁵ Bankura & Birbhum.

Sl. No.	Details of the Lease	Name of mineral	Royalty & Cess realisable	Royalty & Cess realised	Non/short realisation of royalty & Cess
3.	Mouza- Trachua, JL. No. 36, Plot Nos.-3943(P), 3944, 3945 & 3946(P), PS- Rampurhat Dist.-Birbhum Area 3.62 acres	Black stone	61,26,929	59,43,101	1,83,828
4.	Mouza- Brindabanpur, JL. No.-289, Plot Nos. 350, 350/817, 351(P) Dist- Bankura Area- 12.24 acres	China clay & Fire clay	1,53,670	0	1,53,670
5.	Mouza-Kanchalla-JL. No.-26, Plot No. 11 to 13 & 15 Dist- Bankura area- 4.99 acres	China clay	2,45,340	0	2,45,340
	Total		2,85,20,148	2,40,72,365	44,47,783

Reasons for the non/short recovery of royalty & cess were not available on record.

In the Exit Conference L&LR and RR&R Department stated that (July 2023) instructions would be issued to the concerned DL&LROs for recovery of dues.

2.10.2 Realisation of royalty on sand

The IC&E Department revised (13 January 2022) the rate of royalty of minor minerals, from ₹ 53 per cum (₹ 151 per 100 cft), to ₹ 106 per cum (i.e. ₹ 302 per 100 cft).

Scrutiny of cash books, mining lease files, the WBMDTCL portal and other relevant records, in six¹⁵⁶ selected districts, revealed that quarry permits, for 1.41 crore cft of sand, had been issued to 153 lessees, between 13 and 31 January 2022.

Audit observed that WBMDTCL had collected royalty @ ₹ 151 per 100 cft, instead of the revised rate of royalty @ ₹ 302 per 100 cft. WBMDTCL had not updated its portal, incorporating the revised rates and e-challans had been generated through portal automatically at the pre-revised rates. As a result, the State Government had been able to realise only ₹ 2.12 crore, instead of ₹ 4.24 crore, as shown in *Appendix - 10*, resulting in loss of revenue of ₹ 2.12 crore.

Recommendation 3:

Government should take necessary action against the erring officials of WBMDTCL responsible for delay in updating the rates in the portal. It should also ensure that the rates in the WBMDTCL portal are updated in real time basis to stop loss of revenue.

2.10.3 Realisation of royalty and cess collected by other Departments, on behalf of the L&LR and RR&R Department

State Government Departments, like the Public Works Department; West Bengal State Rural Development Agencies (WSRDAs); Zilla Parishads (ZPs); Irrigation & Waterways Department and Ministry of Railways, GoI; collect royalty from work executing agencies, on behalf of the L&LR and RR&R Department.

¹⁵⁶ Bankura, Kalimpong, Paschim Bardhaman, Purba Bardhaman, Purba Medinipur & Purulia.

In terms of Gazette Notification¹⁵⁷, the rate of royalty of minor minerals was revised (October 2016), with effect from the date of the notification (27 October 2016).

Audit verified 902 works executed by contractors, on behalf of the WBSRDA¹⁵⁸ in five¹⁵⁹ districts and on behalf of ZPs in two districts¹⁶⁰, during FYs 2017-18 to 2021-22, and noticed that these offices had deducted royalty and cess, at source, from the contractor's final bills, towards the volume of minor minerals (earth, sand, morrum etc.), consumed in different items of work.

Audit, however further, observed that these Zilla Parishads & WBSRDAs had deducted royalty at rates lower than the prescribed rate of ₹ 53.00 & ₹ 29.00 per cum, for sand and earth, respectively, from the bills of the concerned contractors. The concerned WBSRDAs and ZPs had sent details of those deductions, made on account of royalty and cess, to the concerned DL&LROs. **The DL&LROs had, however, failed to (i) check the correctness of the applicable rates of royalty/cess being deducted by those authorities and (ii) issue necessary instructions to arrest the trend of short collection of royalty/cess.** This had resulted in short levy and realisation of royalty amounting to of ₹ 3.62 crore, as shown in *Appendix -11*.

The actual amount of short realisation may be higher, as necessary information had not been furnished by other departments (PWD and I&WD), though called for and the possibility of similar instances could not be ruled out.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that instructions would be issued to the concerned DL&LROs for recovery of dues.

2.10.4 Extraction of minerals in deviation to mining plan

Rule 11 of the Mineral Conservation and Development (MCD) Rules, 2017, provides that every holder of a mining lease shall carry out mining operations in accordance with the approved mining plan, with such conditions as may have been prescribed. If the mining operations are not carried out as per the mining plan, the competent authority may order suspension of all or any of the mining operations. Under Section 21(5) of the MMDR Act, 1957, whenever any person raises, without any lawful authority, any mineral from any land, the State Government may recover the price¹⁶¹ of the mineral, from such person.

Scrutiny of extraction reports and approved mining plans, in two¹⁶² selected districts, revealed that 13 successful bidders, of long term sand mining leases, had extracted 3.36 crore cft of sand, in excess of the quantity that had been targeted under their approved mining plans, during FYs 2017-18 to 2021-22.

The price of minerals, amounting to ₹ 2.05 crore, was required to be recovered from the concerned lessees @ ₹ 227 per 100 cft (₹ 151×1.5)¹⁶³, on excess

¹⁵⁷ No. 678 –CI/O/MIN/GEN-RLT/02/2015 dated 27.10.2016 of IC&E Department, GoWB.

¹⁵⁸ West Bengal State Rural Development Agency (WBSRDA).

¹⁵⁹ Bankura, Birbhum, Purba Bardhaman, Purba Medinipur & Purulia.

¹⁶⁰ Birbhum & Purba Medinipur.

¹⁶¹ Price of any mineral is @ 1.5 times of the royalty last notified by the State Government.

¹⁶² Purba Medinipur & Purulia.

¹⁶³ Rate of royalty of sand ₹ 151 per 100 cft.

extraction of 3.36 crore cft of sand, as detailed in **Appendix -12**. Audit observed that the district authorities (DL&LROs) had neither taken action to suspend the mining operations nor had they realised the price of the excess minerals so extracted.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that instructions would be issued to the concerned DL&LROs for realisation of price of minerals.

2.10.5 Realisation of Dead Rent

As per Rule 2(f) of the WBMMC Rules, 2016, ‘dead rent’ is defined as *‘the amount to be paid annually by the lessee during the lease period, as may be prescribed by the State Government from time to time’*. Under Rule 35 (2) *ibid*, read with Section 12 of the MC Rules, 2016, the lessee is to pay, for every year, a yearly dead rent, provided that the lessee is liable to pay either the dead rent, or the royalty, in respect of each mineral, whichever is higher.

Audit observed that three¹⁶⁴ Mining Offices had assessed ₹ 32.12 lakh as dead rent of 18 mining lease holders of china clay, black stone, Quartz, Feldspar between January 2016 and March 2022, but the lessees had not paid any dead rent, upto September 2022.

Audit further observed that MO, Birbhum, had adopted the wrong method of calculation of dead rent, by multiplying the applicable rate of the annual dead rent with the available area in hectares¹⁶⁵, instead of acres. This had resulted in under assessment of dead rent, amounting to ₹ 21.84 lakh (**Appendix-13**).

Thus, the district authorities (DL&LROs) had failed to realise dead rent of ₹ 53.96 lakh (₹ 32.12 lakh + ₹ 21.84 lakh) from the lessees till date (November 2022).

2.10.6 Realisation of Surface Rent and Water Rate

Clause 1(c) of Rule 35 of Part-VI of the WBMMC Rules, 2016, provides that the lessee shall pay annually Surface Rent (SR), for the surface area used by him, for the purpose of the mining operations @ ₹ 90 per acre, or as fixed by the State Government, from time to time. The lessee is also required to pay annually, to the State Government, Water Rate (WR) @ ₹ 54 per acre, or as specified for the said purpose, from time to time.

Audit observed that 203 sand mining lessees, in three¹⁶⁶ districts, had not paid SR of ₹ 5.01 lakh and WR of ₹ 3.00 lakh, during FYs 2017-18 to 2021-22.

Thus, the district authorities (DL & LROs) had failed to realise SR & WR of ₹ 8.01 lakh (₹ 5.01 lakh + ₹ 3.00 lakh) from the lessees till date (November 2022).

This had resulted in non-realisation of revenue, in form of SR and WR, amounting to ₹ 8.01 lakh as shown in **Appendix -14**.

¹⁶⁴ Mining Officers, Birbhum, Bankura & Purulia.

¹⁶⁵ One hectare = 2.471 acres.

¹⁶⁶ Bankura, Birbhum & Purulia.

2.11 Realisation of royalty, cess and price of brick earth

2.11.1 Non/ short realisation of royalty and cess on earth, from brick field owners

Rule 35 of the WBMMC Rules, 2016 provides that the holder of a mining lease or any other mineral concession granted on or after the commencement of these rules, shall pay royalty in respect of mineral or minerals extracted at the rate as notified from time to time by the State Government through IC&E Department. The rates of royalty (@ ₹ 82 per 100 cft.) were fixed by IC&E Department in October 2016. In addition to the royalty, the lessee/contractor has to pay different types of cesses (@ ₹ 15 per 100 cft.) on extraction of minor minerals as per Cess Act 1880 (as amended in 1984). There were no enabling provisions in the WBMMC Rules, 2016 to ensure timely payment of royalty and cess by the lessees/ contractors. Payment schedule was also not prescribed in the said rules.

Audit test-checked brick field registers¹⁶⁷ and other relevant records, in five¹⁶⁸ DL&LROs and took up 802 cases for detailed scrutiny, out of 1,537 cases of extraction of earth. Out of these, in 230 cases, the concerned brick field owners had extracted 4.20 crore cft of earth, between FYs 2017-18 and 2021-22. Details of non/short realisation of royalty¹⁶⁹ and cess¹⁷⁰, on brick earth in these 230 cases, are shown in **Table 2.2**.

Table 2.2: Non/short realization of royalty & cess on brick earth

Sl. No.	Nature of irregularities	No. of cases	Quantity of earth extracted (cft in crore)	Royalty & cess to be recovered (₹ in crore)	Royalty & cess recovered (₹ in crore)	Non/short recovery of royalty & cess (₹ in crore)
1	2	3	4	5	6	7=5-6
1.	Non-recovery of royalty & cess	166	2.87	2.79	Nil	2.79
2.	Short-recovery of royalty & cess	64	1.33	1.28	0.72	0.56
Total		230	4.20	4.07	0.72	3.35

(Source: Brick field records of district offices)

The concerned DL&LROs had failed to realise these dues, resulting in non/short realization of royalty and cess, amounting to ₹ 3.35 crore, as detailed in **Appendix -15**. Reasons for non/short recovery of royalty and cess of earth, were not found available on records.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that instructions would be issued to the concerned DL&LROs for realisation of royalty and cess on brick earth.

¹⁶⁷ District Authority maintained a register of mining lease in respect of minor minerals in every district showing Sl. No., Name of lessee, Mouza with JL No., Area, year, Quantity etc.

¹⁶⁸ Bankura, Birbhum, Paschim Bardhaman, Purba Bardhaman & Purba Medinipur.

¹⁶⁹ The rate of royalty for brick earth is ₹ 82 per 100 cft.

¹⁷⁰ The rate of cess for brick earth is ₹ 15 per 100 cft.

2.11.2 Realisation of the price of earth, from brick field owners without valid permits

Under Section 21 of the MMDR Act, 1957, read with Rule 50 of the WBMMC Rules, 2016, whenever any person removes, without any lawful authority, any mineral, from any land, the State Government may, apart from penal actions like seizure, confiscation, eviction, imprisonment *etc.*, recover from such person the mineral so removed, or, where such mineral has already been disposed of, the price thereof. Accordingly, the State Government fixed (March 2018) the price of earth at ₹ 123 per 100 cft, which is 1.5 times the royalty¹⁷¹ for extraction or removal of the earth.

Audit checked the brick field registers and other relevant records, in six DL&LROs¹⁷² and took up 2,139 cases for scrutiny, out of 3,498 cases pertaining to extraction of earth. Out of these, in 1,272 cases, the concerned brick field owners had extracted 20.14 crore cft of earth, between FYs 2017-18 and 2021-22, without being in possession of valid permits.

However, the authorities (DL&LROs) had not taken action to stop such unauthorised extraction nor had they initiated penal action, in terms of extant rules. Moreover, the authorities (DL & LROs) had recovered only ₹ 5.29 crore, as the price of earth (@ ₹ 123 per 100 cft), out of the total amount of ₹ 24.77 crore, recoverable for this unauthorised extraction of earth. This had resulted in non/short recovery of ₹ 19.48 crore (*Appendix -16*), as shown in **Table 2.3**.

Table 2.3: Non/short recovery of the price of earth

Sl. No.	Nature of irregularity	No. of cases	Quantity of earth extracted (cft in crore)	Price of earth to be recovered (@ ₹ 123 per 100 cft) (₹ in crore)	Price of earth recovered (₹ in crore)	Non/short recovery of earth (₹ in crore)
1	2	3	4	5	6	7=5-6
1.	Non-recovery of price of earth	918	13.86	17.05	Nil	17.05
2.	Short-recovery of price of earth	354	6.28	7.72	5.29	2.43
Total		1,272	20.14	24.77	5.29	19.48

(Source: Brick field records of district offices)

Reasons for non/short recovery of price of earth were not found available on records. Similar observations had been made in previous C&AG's Audit Reports (2013-14 to 2018-19)¹⁷³. However, remedial measures have not yet been taken, by the L&LR and RR&R Department, to curb such irregularities, as was evident from the preceding facts.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that instructions would be issued to the concerned DL&LROs for realisation of price of brick earth.

¹⁷¹ The rate of royalty for brick earth is ₹ 82 per 100 cft.

¹⁷² Bankura, Birbhum, Jhargram, North 24 Parganas, Paschim Bardhaman & Purba Bardhaman.

¹⁷³ Para No. 7.7 of AR 2013-14, Para No. 6.4.18 of AR 2014-15, Para No. 6.4 of AR 2015-16, Para No. 6.4 of AR 2016-17, Para 7.5 of AR 2017-18 and Para 6.4 of AR 2018-19.

2.12 Levy of penalty due to short extraction of minerals

In terms of Rule 21(1)(e) of the WBMM Rules, 2002, read with Clause 3(b) of Part-VII of the model lease deed¹⁷⁴ of minor minerals, lessees are to extract and despatch the minimum quantity of minerals from the leasehold area per annum, failing which penalty, of double the amount of royalty that should have accrued on the shortfall quantity, is to be realised from the concerned lessees, at the end of the year.

Audit observed that two of the 18 lessees, in two¹⁷⁵ districts had extracted 2.51 lakh cubic meters of black stone, between FYs 2017-18 and 2021-22, against the minimum prescribed quantity of 11.90 lakh cubic meters, as per the lease deeds. Both the lessees were required to pay penalty for this short extraction of minerals, which was twice the amount of royalty that should have accrued. The district authorities (DL&LROs) had, however, neither levied penalty for the short extraction of 9.39 lakh cum black stone, nor issued demand notices for realisation of such penalty.

This had resulted in non-levy of penalty, that was due on account of short extraction of minerals, along with consequent non-realisation of revenue of ₹ 9.95 crore, as shown in *Appendix -17*.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that instructions would be issued to the concerned DL&LROs for realisation of dues.

2.13 Non-realisation of revenue, due to non-initiation of certificate proceedings

Under clause 5, under Part-VI of the WBMMC Rules, 2016, read with sub-section 1 of Section 25 of the MMDR Act, 1957, if any royalty or rent remains, at any time, unpaid for three calendar months after the date on which it is due, the Government may determine the lease and take possession of the premises comprised thereon. These rights shall be without prejudice to the right of the Government/ District Authority to realise the dues, under the BPDR¹⁷⁶ Act, 1913. The process prescribed in the Act, to recover the assessed dues remaining unpaid, is referred to as ‘certificate proceedings’.

Audit observed that, in two¹⁷⁷ selected districts, there were six (out of 146) cases of non- observance of rule provisions, which had resulted in non- realisation of Government revenue, as discussed below:

- i. Quarry Permits, for removal of total 26.80 lakh cft of black stone, were issued in favour of a lessee¹⁷⁸, in Birbhum, between FYs 2010-11 and 2015-16. As per the measurement report of the BL&LRO, Md. Bazar, the lessee had removed 62.32 lakh cft of black stone. Thus, the lessee had extracted 35.52 lakh cft of black stone, in excess. The district authorities

¹⁷⁴ A Lease Deed attached with WBMM Rules, 2002 and lessees had to execute their lease deed accordingly.

¹⁷⁵ Birbhum & Purulia.

¹⁷⁶ Bengal Public Demands Recovery (BPDR).

¹⁷⁷ Bankura & Birbhum.

¹⁷⁸ M/s Kariya Nimdasapur Stone (Gitty) Quarry, proprietor Shri Dilip Kumar Pal, Mouza-Karaya, JL. No. 89, area- 9.95 acres PS- MD Bazar, Dist.-Birbhum.

- (DL&LRO) imposed (January 2021) penalty of ₹ 3.55 crore, which the lessee had not paid till May 2022.
- ii. As per the measurement (March 2016) done by the Birbhum district authorities (DL&LRO), a black stone mining lease holder¹⁷⁹ had extracted 11.02 lakh cft of black stone, in excess. The district authority (DL&LRO) had issued demand notice (March 2016) to the lessee, directing it to pay ₹ 13.66 lakh towards royalty and cess. The lessee had paid total amount of ₹ 9.00 lakh in two instalments (November 2020), against this demand notice. However, the balance dues of ₹ 4.66 lakh had not been realised from the lessee, till date (May 2022) by the DL&LROs.
 - iii. There were mining dues of ₹ 52.35 lakh, for extraction of 31.35 lakh cft of sand, from four¹⁸⁰ lessees, for the period between June 2020 and March 2021, in Bankura district. The district authorities (DL&LRO) had issued demand notices (February 2022) to the lessees, but the amount had not been realised (as of July 2022).

The district authorities (DL&LROs) had neither instituted a periodic review and monitoring mechanism, to ensure prompt realisation of assessed dues, nor had they initiated certificate proceedings, to realise the dues under the BPDR Act, 1913, even after lapse of 16 to 25 months. Thus, inaction on the part of the DL&LROs, resulted in non-realisation of revenue of ₹ 4.12 crore.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that instructions would be issued to the District Offices for speedy initiation of certificate cases.

Recommendation 4:

Government should take action against the concerned DL&LROs who failed to follow the extant rules. It should also ensure that certificate proceedings are initiated, as soon as the period of three months gets elapsed, to enhance the chances of revenue realisation.

2.14 Management of District Mineral Foundations

Section 9B of the MMDR Act, 1957, provides for the establishment of District Mineral Foundation (DMF) Trusts. The West Bengal District Mineral Foundation Rules, 2016 (WBDMF), were framed (July 2016) to regulate the constitution and functioning of the DMF in each district of the State. The DMF is expected to function as a non-profit body, to work for the interest and benefit of persons and areas affected by mining related operations. The Ministry of Mines (GoI) notified¹⁸¹ (September 2015), the amount to be paid to the DMF, by the concession holders, for minor minerals, at the rate of:

(a) ten per cent of the royalty, in respect of mining leases granted on or after 12 January 2015, and

¹⁷⁹ Sk. Salauddin, Vill- Patharchal, PO- Harinsingha, PS- Md. Bazar, Dist- Birbhum.

¹⁸⁰ M/s Sanjoy Shit, sand block-0108DR020 (₹ 15,06,340); M/s Shomuk Consultancy Services Private Limited, sand block code-0121DM002 (₹ 3,85,770); M/s Uttam Kr. Pal, sand block code-0118DR004 (₹ 26,72,840); and M/s Pal Enterprise, sand block code-01108DR029 (₹ 6,70,510).

¹⁸¹ Gazette of India, Notification No. G.S.R. 715(E) dated 17.09.2015.

(b) thirty *per cent* of the royalty, in respect of mining leases granted before 12 January, 2015.

The DMF is to be managed by a Governing Council, which is to consist of all the Members of the Foundation. The day-to-day management of the Foundation is to be managed by a Managing Committee, the constitution of which is to be decided upon by the State Government. Records provided by seven¹⁸² district offices, revealed several deficiencies in the compliance of extant provisions, in the management of the DMFs, as discussed in the paragraphs.

2.14.1 Formation of District Mineral Foundations (DMFs)

The WBDMF Rules mandated (July 2016) constitution of DMFs in each district of the State. However, no specific time line for this purpose, was recommended in the rules. Rule 7 of the WBDMF Rules, 2016, provides that the State Government shall appoint the Trustees as the Trustees of Foundation¹⁸³. The records of the seven selected districts revealed that six districts¹⁸⁴ had executed deeds of trust, between July 2018 and March 2022, after a period ranging from 24 months to 69 months, since the time the WBDMF Rules, 2016, had come into effect. It was further observed that, in one district¹⁸⁵, no deed of trust had been executed till March 2022. As the trustees are responsible for drawing and approving the Annual Action Plan and the Annual Budgets, for functioning of the Foundations, delay in the execution of DMF trust deeds hampered the overall functioning of the foundations.

2.14.2 Preparation of Annual Reports of DMFs

Rule 13 of the DMF Rules provides that the Managing Committee is required to place an Annual Report, in respect of the activities undertaken with the funds available with the DMF, within 60 days of close of the financial year, before the Governing Council of the Foundation. A copy of Annual Report is to be sent to the concerned District Magistrate (DM) and to the IC&E Department, within 30 days from the date of its approval.

However, Audit observed that none of the Managing Committee of the seven selected districts had prepared such annual reports. As a result, the concerned DMs, as well as the IC&E Department, were unaware of the activities undertaken out of the funds of the respective DMFs.

2.14.3 Payment of administrative expenses for working of DMFs

Under section 5(2C) of WBDMF Rules, 2016¹⁸⁶, provided that payment of administrative expenses, necessary for the working of DMFs, should not exceed six *per cent* of the total funds received in a financial year.

Five, out of the seven selected districts, could not provide information regarding utilisation of the respective DMF funds. Information made available

¹⁸² Bankura, Birbhum, Kalimpong, Paschim Bardhaman, Purba Bardhaman, Purba Medinipur & Purulia.

¹⁸³ District Magistrate as Chairperson, Additional District Magistrate and DL&LRO as member Convener and other members included from SDOs and officials of other Departments.

¹⁸⁴ Bankura, Birbhum, Kalimpong, Paschim Bardhaman, Purba Medinipur & Purulia.

¹⁸⁵ Purba Bardhaman.

¹⁸⁶ Sub-rule 2(C) of rule 5.

by the two other districts¹⁸⁷, showed the following cases of non-compliance in this regard:

- i. In Bankura, administrative expenses¹⁸⁸ of ₹ 35.07 lakh had been incurred during FY 2017-18, against the total funds of ₹ 1.58 crore received. This constitutes 22.25 *per cent* of the total annual DMF funds received.
- ii. In Purulia, administrative expenses of ₹ 21.51 lakh had been incurred during FY 2020-21, against the total funds of ₹ 85.14 lakh received. This constitutes 25.26 *per cent* of the funds received.

Thus, the administrative expenditure incurred by these district authorities (DMs) was in excess of the stipulated percentage, which was in violation of the WBDMF Rules, 2016.

2.14.4 Utilisation of DMF Funds

Under Rules 5 (a) & (b) of the WBDMF Rules, 2016, the object and functions of the foundation were to work for the interest and benefit of persons affected by mining related operations, as also to work for the areas affected by mining related operations.

Test-check of records, made available by the DL&LRO revealed that, in Bankura, ₹ 48.74 lakh had been incurred from DMF funds by the concerned DM, for purposes not envisaged in the rules, as shown in **Table 2.4**.

Table 2.4: Utilisation of DMF Funds

Sl. No.	Purpose of Utilisation	DM's payment order dated	Amount (in ₹)
1	Repair and renovation of bathroom at ground floor of administrative building, Collectorate, Bankura.	22.07.2022	4,62,622
2.	Supply and installation of split AC, 2 ton, Samsung Machines	14.07.2022	4,95,000
3.	Repair and renovation of bathroom and toilet at ground floor of administrative building, Collectorate, Bankura.	28.06.2022	4,08,655
4	Renovation of tourism kiosk	23.06.2022	2,00,000
5	Upgradation of 2 nd coat at Bankura Sports Club	14.06.2022	2,80,000
6	Construction of boundary wall at Bankura Club	26.05.2022	4,95,524
7	Installation of solar lamps for the weavers within Bishnupur Municipality	24.05.2022	18,74,130
8	Repair and renovation of office chamber and side passage room of CA room of ADM (General), Bankura	12.02.2022	6,48,435
9	Servicing and re-installation of AC at ADM (LR) Bungalow, Bankura	10.05.2022	9,532
	Total		48,73,898

(Source: DMF files and register)

The objectives of setting up the fund were, therefore, defeated to that extent, as these funds should have been utilised for the benefits of persons affected by mining related operations.

¹⁸⁷ Bankura and Purulia.

¹⁸⁸ Expences incurred in computer & printer; furniture, stationery, telephone bill, electrical installation, software, repairing on building, wheel clamp etc.

Recommendation 5:

Government may initiate action against the official responsible for diversion of the DMF Funds. It may also ensure that DMF Funds are not diverted for other purposes and are utilised invariably as per the WBDMF Rules.

2.15 Adequacy and effectiveness of Internal Controls

The internal control mechanism is intended to provide reasonable assurance in regard to proper enforcement of laws, rules and departmental instructions.

Internal controls also help in the creation of reliable financial and management information systems, for prompt and efficient delivery of services, as also for adequate safeguards against evasion of Government revenue.

Deficiencies in the internal control mechanism, relating to operational control are discussed in the following sub-paragraphs:

2.15.1 Submission of Monthly returns

Clause (3), under Part-VI of the WBMMC Rules, 2016, provides that the accounts for each month, in respect of raising¹⁸⁹, stock, sale, dispatch, local consumption, royalty and rent due and paid, shall be completed within 15 days of the month following and true copy of each, duly signed by the Lessee/Lesseees or his/their/its authorised agent, shall be sent to: (i) the Chief Mining Officer, Asansol, (ii) the Mining Officer concerned, (iii) Commerce and Industries Department, State Government and (iv) District Authority, within seven days' thereafter. Further, as per Clause (6), under Part-IX *ibid*, in case of a breach of the aforesaid clauses, by way of late submission of returns within the specified time, the lessee shall be liable to pay a penalty of ₹ 100 per day, after expiry of the prescribed date.

Audit observed only 348 monthly returns had been submitted, as against the 32,520 monthly returns actually due for submission by the lease holders, during FYs 2017-18 to 2021-22, in the seven selected districts, as detailed in Table 2.5.

Table 2.5: Submission of monthly returns by mining lease holders

Sl. No.	District	Number of lessees	Number of monthly returns to be submitted during 2017-22	Number of monthly returns actually submitted during 2017-22
1	Birbhum	154	9,240	240
2	Bankura	141	8,460	108
3	Paschim Bardhaman	33	1,980	0
4	Purulia	55	3,300	0
5	Purba Bardhaman	146	8,760	0
6	Purba Medinipur	9	540	0
7	Kalimpong	4	240	0
Total		542	32,520	348

(Source: Mining lease files of district offices)

¹⁸⁹ Raising: – extraction of minerals.

Reason for non-submission of these monthly returns were not available on records. The authorities (DL&LROs) had also not levied penalties, for non-submission of these returns.

Audit also observed that the district authorities¹⁹⁰ had not monitored the receipt of returns and had also failed to initiate action against such lessees. In the absence of submission of prescribed returns by the lessees, the Department was not in a position to verify the quantity of minerals excavated or to assess the amount of royalty, thus payable by the lessees.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that at present the lessees are regularly submitting the return on WBMDTCL portal.

2.15.2 Inspection of Mining Sites

Under Rule 6 of the WBMPIMTS Rules, 2002, an authorised officer of the State Government may, at any time, visit the stores, and inspect the minerals kept in the stores with reference to the entries made in the registers/bin card¹⁹¹ and, after inspection/checking of minerals, the authorised officer is required to record such visits on the relevant page(s) of the stock register. The authorised officer has the power to seize any mineral, the record of which is not found in the stock register.

Audit observed that inspections had not been carried out by the departmental authorities (Mining Officers), during FYs 2017-18 to 2021-22.

Lack of inspections by Mining Officers implied non-verification of the actual quantity of minerals being excavated/ dispatched, which carried the risk of under-reporting of the minerals excavated, leading to lower collection of revenue, in the form of royalty/cess.

2.15.3 Establishment of Check Posts

In exercise of the powers conferred under Section of 23C of the MMDR Act, 1957, the State Government notified (November 2002) the West Bengal Minerals Prevention of Illegal Mining, Transportation and Storage (WBMPIMTS) Rules, 2002, for preventing illegal mining, transportation and storage of minerals. As per the rules, with a view to checking the transport and storage of minerals raised without lawful authority, check posts and barriers were to be established for weighment and inspection of minerals in transit.

However, Audit observed that check posts had not been established in the seven¹⁹² selected districts (as of March 2022). During Exit Conference, the Department stated (June 2023) that surprise checking and raids were more effective than establishment of check posts. It implied that no system has been instituted to prevent illegal transportation of minerals and to ascertain the exact quantity of minerals being transported. Audit revealed instances of extraction of minor minerals in excess of the approved mining plan in two selected districts resulting in loss of revenue (**Paragraph 2.10.4**).

¹⁹⁰ District authorities:-In case of in-situ mines CMOs or MO and in others mines DL&LROs.

¹⁹¹ Bin card is a quantitative record of material received, issued and balance.

¹⁹² Bankura, Birbhum, Paschim Bardhaman, Purba Bardhaman, Purba Medinipur, & Purulia.

Thus, the possibility of leakage of Government revenue, due to illegal mining and transportation of excess minerals, could not be ruled out.

Recommendation 6:

Government should ensure timely submission of monthly returns by mining lease holders, as well as inspection of mining sites by mining officers, for initiating timely action on the deficiencies noticed therein. It should also consider setting up check posts at important locations to discourage illegal transportation of minerals.

2.16 Environment Impact Assessment

Environment Impact Assessment (EIA) is a planning tool for integrating environment concerns into the developmental process, starting from the initial stages of planning. Under the EIA Notification, 2006, and its subsequent amendments, all projects and activities, pertaining to mining of minor minerals, are broadly categorised into two categories - Category A (≥ 50 ha) and Category B (<50 ha) based on the spatial extent of the potential impact, as also the potential impact on human health and natural and man-made resources. All the selected 811 sand mines fall under B Category while out of 74 *in-situ* mines one mine falls under A category. Further, projects, having lease area upto 5 ha, require prior Environment Clearance (EC) from the District Environment Impact Assessment Authority (DEIAA) and projects that had lease area more than 5 ha and upto 50 ha, require clearance from the State Level Environment Impact Assessment Authority (SEIAA). For category A projects having lease area more than 50 ha require EC from the MoEF, GoI.

Chapter-V of the WBMMC Rules 2016, which deals with the environmental aspects of mining, mandates [under sub-rule (2) of Rule 33] that every successful bidder/holder of a mining lease, shall submit the EC to the DEIAA/SEIAA, as the case may be, within six months from the date of issue of Letter of Intent (LoI). The WBMMC Rules, 2016, further mandate (sub-rule 4 & Rule-10) that the Mining Lease Deed is to be executed within thirty days of the date of completion of the conditions specified in Chapter V of the WBMMC Rules 2016.

Audit observed the following discrepancies, in the seven selected districts, in this regard:

2.16.1 Delay in submission of Environment Clearances (ECs)

In three¹⁹³ districts, the due dates of submission of ECs were between July 2016 and September 2018. However, eight lessees out of 382 had submitted ECs after the prescribed period of six months, with delays ranging from 24 to 272 days, as shown in **Table 2.6**.

¹⁹³ Bankura, Birbhum & Paschim Bardhaman.

Table 2.6: Delayed submission of Environment Clearances (ECs)

Sl. No.	Auction ID	District/Block	Date of issue of LOI	Due date of submission of EC	Date of submission of EC	Delay in submission of EC (in days)
1	2018_WB_800	Bardhaman(W) /Kanksha	16.03.2018	15.09.2018	09.10.2018	24
2	2017_DMBUW_300	Bardhaman(W) /Andal	11.04.2017	10.10.2017	22.11.2017	43
3	2017_DMBUW_269	Bardhaman(W) /Kanksha	20.03.2017	19.09.2017	22.11.2017	64
4	2017_DMBUW_732	Bardhaman(W) /Kanksha	09.01.2018	08.07.2018	09.10.2018	93
5	2016_DMBWB_133	Bankura/Onda	03.04.2017	02.10.2017	02.02.2018	123
6	2017_DMB_72	Birbhum/Nanoor	26.01.2017	25.07.2017	01.12.2017	129
7	2016_DMB_64	Birbhum /Illambazar	09.01.2016	08.07.2016	05.04.2017	271
8	2017_DMBUW_260	Bardhaman(W) /Barabani	09.03.2017	08.09.2017	07.06.2018	272

(Source: Sand mining auction records of district offices)

As evident from **Table 2.6**, the district authorities (DL&LROs) had not objected regarding delay for more than six months for submission of ECs by some lessee. This had resulted in consequent delays in commencement of mining operations and collection of Government Revenue.

Audit further observed that, in two districts¹⁹⁴, seven mining lease deed holders had submitted the ECs to the district authorities (DL&LROs), after execution of lease deeds, with delay ranging from 1 to 346 days, as shown in **Table 2.7**.

Table 2.7: ECs issued after the date of execution of lease deed

Sl. No.	Auction ID	Name of Block/ District	Date of lease deed registration	Date of ECs issued	ECs issued after lease deed (in days)
1	2016_DMBWB_26	Onda/Bankura	24.10.2016	27.10.2016	3
2	2016_DMBWB_73	Joypur/Bankura	07.03.2016	16.02.2017	346
3	2017_WB_337	Patrasayer/Bankura	27.04.2018	03.05.2018	6
4	2016_DMPWB_30	Puncha/Purulia	21.02.2018	28.02.2018	7
5	2017_DMPWB_73	Joypur/Purulia	15.09.2017	21.09.2017	6
6	2017_DMPWB_79	Santuri/Purulia	20.09.2017	21.09.2017	1
7	2017_DMPWB_51	Jhalda/Purulia	27.03.2017	26.07.2017	121

Such cases not only constituted a violation of the WBMM Rules, 2016, but were also indicative of the inadequate priority accorded to environmental aspects.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that instructions would be issued to the District Authority not to execute lease deed before submission of EC

2.16.2 Non-submission of Environment Clearances (ECs)

Audit observed that in two¹⁹⁵ districts, LoIs had been issued to 353 lessees, between January 2017 and June 2019. These lessees were required to submit ECs between July 2017 and December 2019. However, 41 of these lessees had not submitted ECs upto March 2022, in violation of the provisions of Rule 33 of the WBMMC Rules, 2016, as shown in **Appendix - 18**.

¹⁹⁴ Bankura & Purulia.

¹⁹⁵ Bankura & Birbhum.

2.16.3 Submission of environment compliance reports

MoEF&CC had mandated¹⁹⁶ that the project proponents submit six-monthly reports, on the status of compliance of the conditions stipulated in the ECs, including results of the monitored data, to the regulatory authority,¹⁹⁷ in June and December of each calendar year. The project proponents were also required to submit yearly environment statements in Form-V, for each financial year ending 31 March, to the regulatory authorities, i.e. DEIAA/SEIAA, WBSPCB, Regional Office (RO) of the MoEF&CC and Zonal Office of the CPCB.

Audit observed that none of the 333 mining lease holders, in five districts¹⁹⁸, had submitted annual or half-yearly compliance reports (as of March 2022).

Audit further noticed that, in Purulia, the DEIAA had issued (August 2017) an order regarding submission of yearly and half-yearly compliance Reports, in response to which, only nine out of 55 lessees had submitted half-yearly compliance reports (as of September 2022). In Birbhum, the DEIAA had issued (August 2018) a similar order, but no such report had been submitted (as of March 2022).

In the absence of environmental compliance reports, the regulatory authority (DEIAA) could not keep an effective watch over the various aspects of the operations of the projects including probable compromises in the quality of environmental parameters; discharge of pollutants; management of hazardous and solid wastes; and consumption of water and raw material *etc.*

In the Exit Conference L&LR and RR&R Department stated (July 2023) that instructions would be issued to the DL&LROs to monitor the submission of compliance reports.

Thus, from the above it was evident that **neither the departments (L&LR and IC&E) nor the environment regulatory authorities (WBPCB/DEIAA) had been diligent in ensuring necessary compliance of the environment related regulations mentioned in EIA notification.** Further, none of the departments/Authorities (L&LR and RR&R, IC&E, Irrigation and Waterways, WBPCB and West Bengal Bio-Diversity Board) conducted any study regarding impact of existing mining activities on health of habitat, biodiversity, water quality, land degradation, including environmental hazards.

2.16.4 Non-observance of National Green Tribunal orders

National Green Tribunal, Eastern Zone Bench, Kolkata, had directed (February 2015) the respective District Magistrates (DMs) to prepare a list of unauthorized brick kilns which were operating without Consent to Operate (CTO) from the West Bengal Pollution Control Board (WBPCB). It also directed the WBPCB to take appropriate action in accordance with the law and ensure closure of such unauthorized units.

¹⁹⁶ Vide circular No. J-11013/41/2006-IA. II (I) dated 30 June, 2009.

¹⁹⁷ District Environment Impact Assessment Authority (DEIAA), State Environment Impact Assessment Authority (SEIAA), West Bengal Pollution Control Board (WBSPCB), Regional Office (RO) of Ministry of Environment, Forest and Climate Change (MoEFCC) and Zonal Office of Central Pollution Control Board (CPCB).

¹⁹⁸ Bankura, Kalimpong, Paschim Bardhaman, Purba Bardhaman & Purba Medinipur.

During course of audit, no records were found to suggest whether such lists were prepared by the concerned DL&LROs or any action was taken by WBPCB. However, scrutiny of the records of seven selected districts revealed that 991 (52 *per cent*) out of the total 1891 brick kilns were unauthorized (without CTO/EC) as of March 2022. **Presence of unauthorized brick kilns in these districts is indicative of the fact that authorities (DMs and WBPCB) are not prioritizing closure of such unauthorized units, in order to prevent environmental hazards.**

Recommendation 7:

Government should ensure timely submission of the prescribed reports on the status of compliance of the EC conditions, to the regulatory authority (DEIAA).

2.17 Sustainable consumption and production patterns in mining activities (SDG 12)

An agenda for implementation of 17 Sustainable Development Goals (SDGs) and 169 associated targets by 2030, had been adopted (September 2015) by all United Nations Members. SDG 12, set out in this agenda, aims ensuring sustainable consumption and production patterns. It aspires to achieve the sustainable management and efficient use of natural resources.

The key areas involved in working on targets associated with SDG 12 include efficient management of natural resources like land, water, and air; limiting the generation of toxic waste and pollutants and their safe disposal; and adoption of sustainable consumption practices in public as well as private spheres. Thus, stakeholders like industries, businesses and consumers play a large part in achieving SDG 12.

The Department of Planning and Statistics & Programme Monitoring, Government of West Bengal, is the Nodal Department for implementation of work relating to SDG 12. As the Nodal Department, it was required to follow-up and review the implementation of this agenda and its achievements against the targets set out in SDG 12. However, the Nodal Department stated (January 2023) that, the action taken report on SDG 12 was not available with it. This indicated that Nodal Department was not ensuring effective implementation of the SDG 12 program.

2.18 Availability of manpower

The Directorate of Mines and Minerals (DMM) was established in 1957, under the Commerce and Industries Department, GoWB. It was entrusted with the responsibility of ensuring systematic and scientific exploration, exploitation of mineral resources of the State, promoting mineral-based industries for encouraging employment generation and increasing revenue earning.

It carries out geological studies, as well as exploration and drilling work, to establish mineral deposits in the State. It processes Reconnaissance Permits (RPs)¹⁹⁹/Prospecting Licences (PLs)²⁰⁰/Mining Lease (ML)²⁰¹ applications

¹⁹⁹ *If includes any operations undertaken for preliminary prospecting of a mineral, through regional, aerial, geophysical or geochemical surveys and geological mapping, but does not include pitting, trenching, drilling*

²⁰⁰ *Licences granted for undertaking prospecting operations, for the purpose of exploring, locating or proving mineral deposits.*

²⁰¹ *A legal contract for the right to work a mine and extract minerals or other valuable deposits from it, under prescribed conditions.*

and monitors mining activities. It advises the State Government on the implementation of mineral rules, to strengthen the mineral administration.

The cadre-wise sanctioned posts, *vis-a-vis* men-in-position, between January 2017 and April 2022, is detailed in **Table 2.8**.

Table 2.8: Status of manpower in the DMM

As on	Category of posts							
	Group A				Group B			
	Sanctioned post	Men-in-position	Vacancy	vacancy per cent	Sanctioned post	Men-in-position	Vacancy	Vacancy per cent
01.01.2017	39	21	18	46.15	68	34	34	50.00
01.01.2018	39	17	22	56.41	68	25	43	63.24
31.03.2019	39	15	24	61.54	68	22	46	67.65
01.01.2020	39	13	26	66.67	68	22	46	67.65
08.01.2021	39	17	22	56.41	68	18	50	73.53
18.04.2022	39	17	22	56.41	68	18	50	73.53

- The overall vacancy position in Group A technical posts²⁰², ranged from 46.15 to 66.67 *per cent*, against the sanctioned strength of 39, in the State, during January 2017 and April 2022.
- Vacancies ranged from 50 to 73.53 *per cent*, against the sanctioned strength of 68, in Gr. B category technical posts²⁰³, in the State, during January 2017 to April 2022.

Recommendation 8:

The Department should undertake a comprehensive exercise for Human Resource augmentation and deployment, for ensuring proper regulation and monitoring of mineral exploration and development in the State.

2.19 Application of Geographic Information System (GIS)

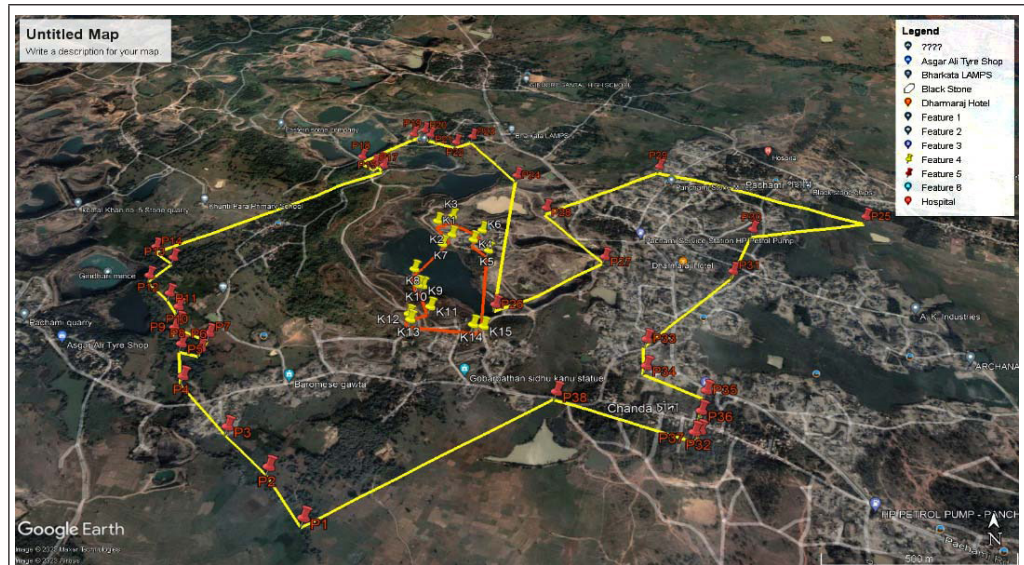
Audit plotted the Coordinates of 61 approved mining plans, provided by the IC&E Department, in the Google Earth Pro Software. The satellite images (April 2017 to September 2022), obtained from the Google Earth Pro Software, were analysed, to search for unusual activities relating to mining. Observations based on this exercise are discussed in paras 2.19.1 to 2.19.4 below:

2.19.1 Overlapping coordinates

Coordinates of mining plans were geo-referenced, using the Google Earth Pro Software and it was observed that, in two mines i.e. Pachami Black stone mine (WBMDTCL) and Kamal Khan Black Stone quarry, in Birbhum District, the approved mining areas were overlapping, as shown in **Fig 2.1**. This indicates that the Department had not verified the coordinates of said mines before approving the mining plans. In such a situation, the possibility that lessees may have been carrying out activities in non-approved areas/zones, cannot be ruled out.

²⁰² Mining Officer, Geologist, Mineral Chemist, Drilling Engineer, Driller and Inspecting Officer.

²⁰³ Assistant Driller, Investigator, Inspector, Mechanic, Draftsman, Underground Surveyor and Surveyor.



Yellow Outline– Pachami Black stone mine (West Bengal Minerals Dev. & Trading Corp. Ltd) Red outline – Kamal Khan Black Stone quarry.

Fig 2.1: Overlapping Mining areas

2.19.2 Verification of Khasra Map

Audit observed, in one case²⁰⁴, that the approved mining area did not match with the shape in the Khasra Map, attached with the mining agreement. This indicated that the concerned Mining Officer had not verified the coordinates of the mining area, with the Khasra map, before approving these mining plans. In such a situation, the lessees may have been carrying out mining activities in non-approved areas/zones. Figs 2.2 & 2.3 show the Khasra map co-ordinate boundary of the lessees.

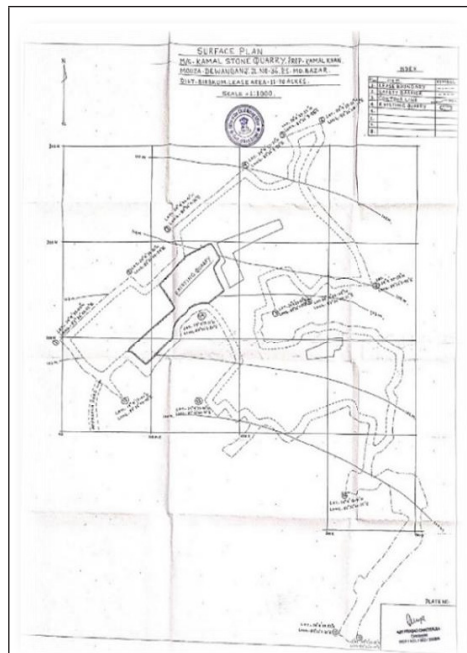


Fig-2.2



Fig-2.3

Figs 2.2 & 2.3: Khasra map & Coordinates map

²⁰⁴ Kamal Khan Black Stone quarry, Birbhum District.

2.19.3 Verification of co-ordinates, before approval of mining plans

Audit plotted the co-ordinates, as per the approved sand mining plans, in the google earth pro software, in seven selected DL&LROs and observed, in the instant case²⁰⁵, that the area under mining was 18 ha, as against 2.09 ha, which was to be allotted to the lessee, as per the approved Mining Plan. Thus, in such a situation, the lessees may have been carrying out mining activities **in an additional 15.91 ha**, as shown in Fig 2.4.

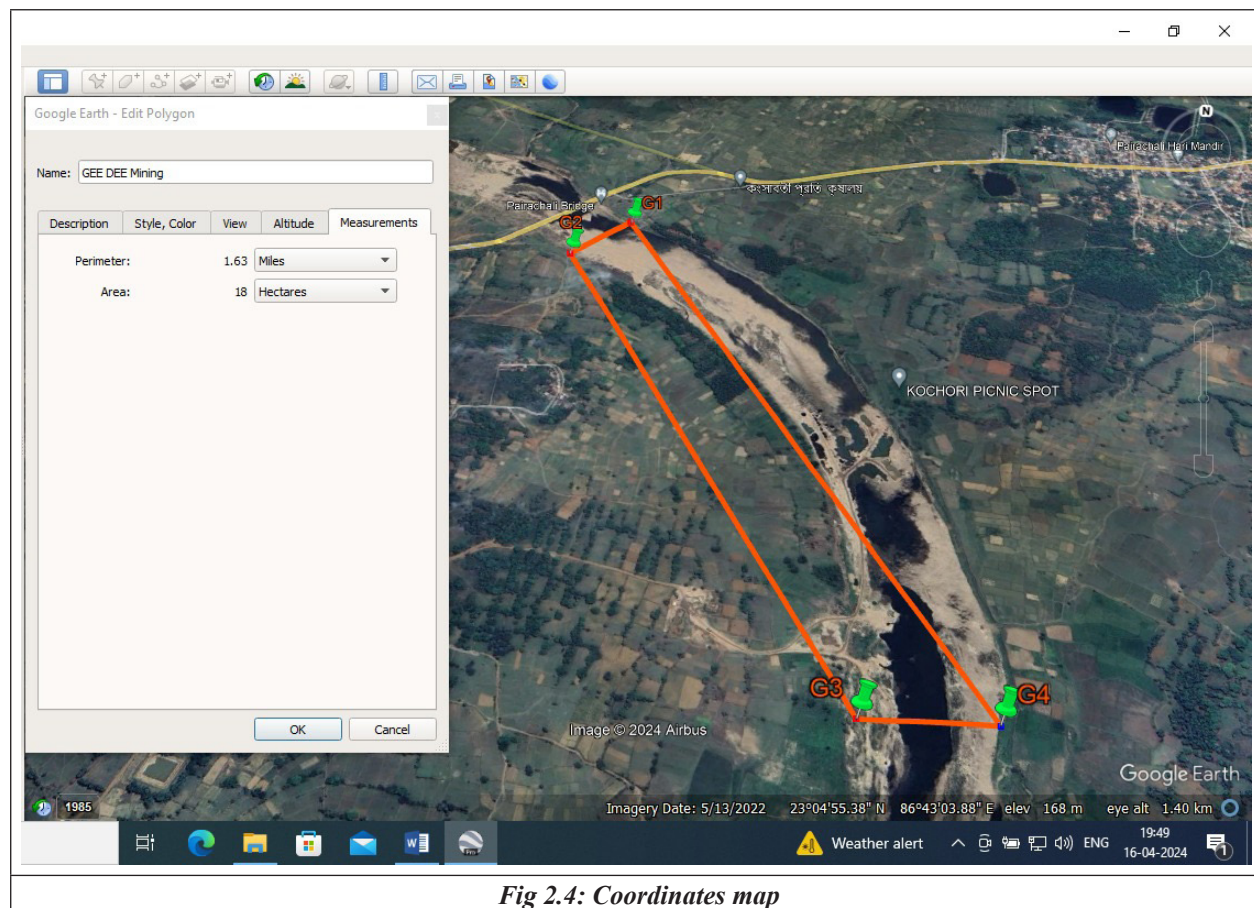


Fig 2.4: Coordinates map

2.19.4 Afforestation Programme

As per Rule 33 of the WBMMC Rules, 2016, every successful bidder/holder of a mining lease is required to submit the Environment Clearance (EC) from the MoEF&CC/SEIAA/DEIAA to the Department²⁰⁶. As per the conditions stipulated in the EC/Mining Plans, lease holders are required to undertake afforestation programmes, in the next five years, in the barrier zone²⁰⁷.

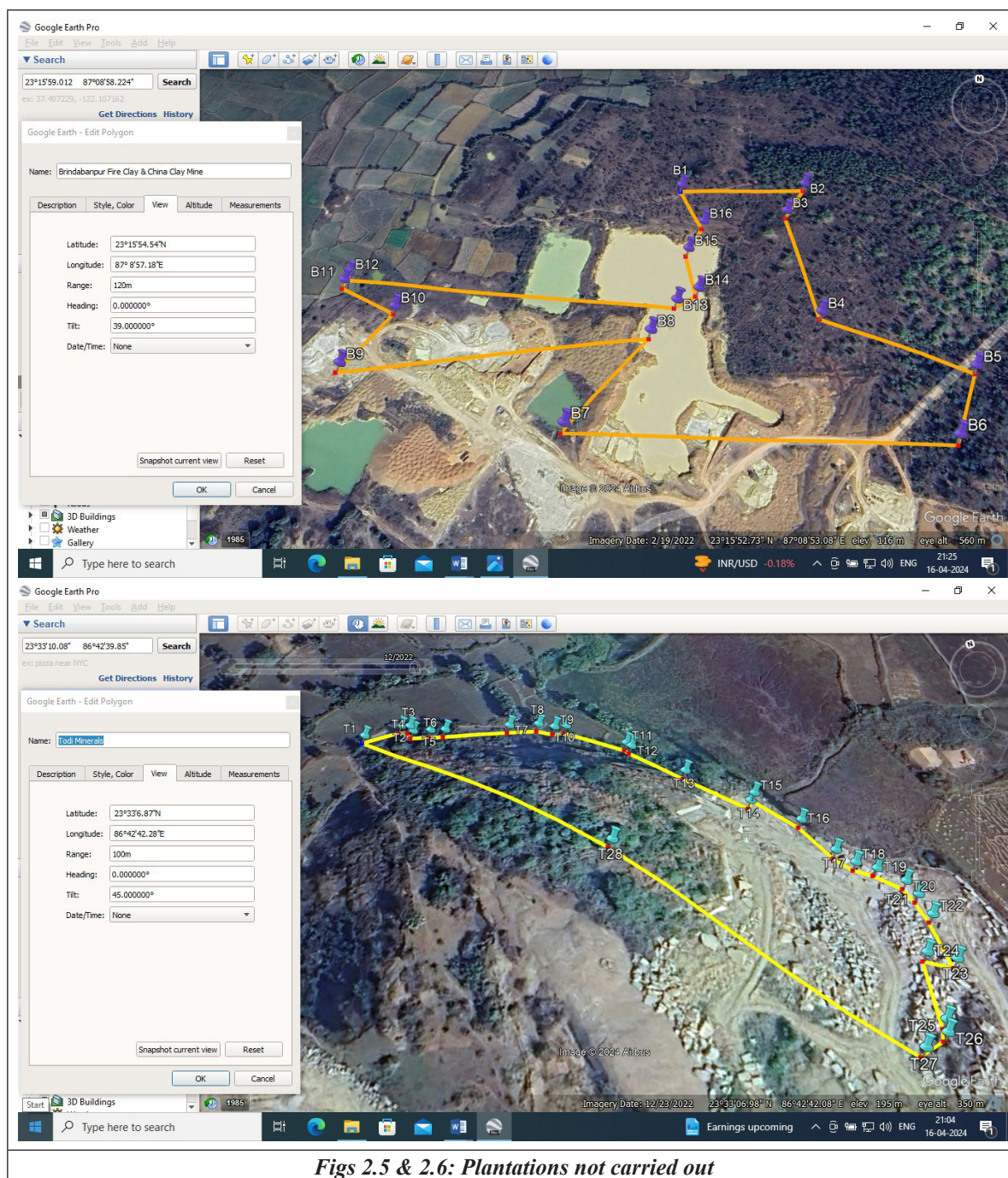
Coordinates of 61 in-situ mining plans were geo-referenced, using Google Earth Pro Software and it was observed that, in two cases²⁰⁸, plantation work had not been carried out, as per the EC and Mining Plan. Absence of plantations was evident in all the other cases/images as shown in Figs 2.5 & 2.6.

²⁰⁵ Gee Dee Mining Pvt. Ltd., Purulia.

²⁰⁶ Department: In case of in-situ mines IC&E Department and in others mines DL & LROs.

²⁰⁷ All along the outer boundary of the mining lease area.

²⁰⁸ Bibhas Kumar Das, Lusy Mining & Minerals, Brindabanpur Fire Clay & China Clay Mine at Bankura district; M/s Todi Minerals Pvt. Ltd., Granite/ Stone Mine at Purulia District.



Figs 2.5 & 2.6: Plantations not carried out

Thus, the lessees were not complying with stipulated conditions, with regard to the Environmental safeguards envisaged in the ECs and Mining Plans and the Department had failed to enforce compliance of the Act and norms envisaged in the ECs and Mining Plans.

2.20 Analysis of Mines using Unmanned Aerial Vehicle (UAV)

Audit carried out a Geo-spatial field study (March 2023), at three²⁰⁹ mining sites, with the help of an expert team from the Centre for Aerospace Research, MIT Campus, Anna University, Chennai (the Agency), in the presence of State

²⁰⁹ Bibhas Kumar Das, Brindabanpur Fire Clay & China Clay Mine at Bankura district; M/s Todi Minerals Pvt. Ltd., Granite/ Stone Mine at Purulia District & Mr. Arun Saraf, Gee Dee Mining Pvt. Ltd. Sand mining at Purulia district.

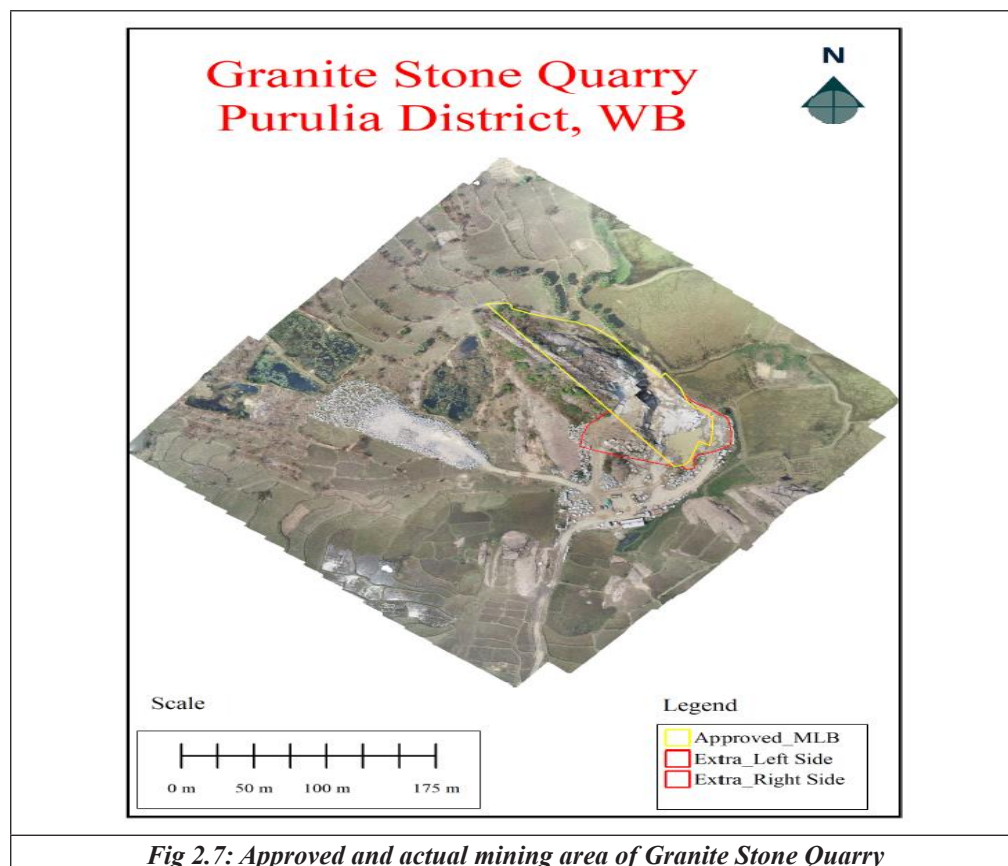
Mining Officials of two²¹⁰ districts. The main aim of the project was to ascertain mapping/verification of allotted mining areas/operations, as well as to estimate the volume of minor minerals excavated, using UAV, DGPS instrument, Bathymetric and GIS technology.

Based upon the survey report of the expert team, the following were observed:

2.20.1 Mapping of allotted Granite mining area

The Agency had applied the Grid-based Volume Calculation,²¹¹ based on an equally distributed grid on a 3D mesh file²¹². The study used the grid method for volume calculation because it is most suitable for UAV based DEM²¹³.

The study for Granite mining sites at *Talsankra* village at Purulia District revealed that a polygon (marked in yellow) was formed by the approved mining lease boundary coordinates, using geo-referenced UAV data. The Global Positioning System (GPS) receiver was used to ascertain any unusual activities beyond the approved mining boundary. The red polygon (both the left and right side), beyond the approved mining lease, indicated the extra excavated volume of mineral, as shown in **Fig 2.7**.



The probable volume calculation of minerals, excavated in the Minor Mineral Quarry, using UAV, was as shown in **Table 2.9**.

²¹⁰ Bankura and Purulia.

²¹¹ Volume is calculated based on an equally distributed grid on a 3D mesh file.

²¹² Describes the structural build of a 3D model, consisting of polygons. 3D meshes use X, Y and Z axes reference points, to describe the shapes with height, width and depth.

²¹³ A DEM is a representation elevation of the terrain (bare-earth) at raster grid format.

Table 2.9: Excess mining of granite

Sl No.	Survey No*	Volume (m ³) of Granite extracted	Total Volume (m ³)	Area (ha) Granite Extend**	Max. Depth (m)
1.	2974	36,680.856	36,680.856	0.423	21
2.	Extra excavated	5,182.53	5182.53	0.2272	9.8

Note: - * Survey No. is actually Plot No. given to a piece of land by the Government. Extra left & Extra Right means extra extraction beyond the approved mining area of granite mine both left and right side of the allotted area

** Area in which mining operation carried out

As per drone survey report, lessee carried out mining operation in 2,272 m² beyond the approved mining area and illegally excavated 5,182.53 m³ granite, for which the price of mineral would amount to ₹ 0.98 crore @ ₹ 1,890 per m³ (₹ 1,260 x 1.5)²¹⁴.

2.20.2 Mapping of allotted China clay & Fire clay mining area

The survey report for the China Clay and Fire Clay mining sites, at the Brindabanpur village, at Bankura District, revealed that a yellow polygon was formed by the approved mining lease boundary coordinates, using geo-referenced UAV data. The Global Positioning System (GPS) receiver was used to ascertain any unusual activity beyond the approved mining boundary. The red polygon falling inside the forest area, as per the google earth image, indicated that the lessee had carried out mining operation (February 2022) beyond the approved lease area. The estimated extra quantity extracted was 3,770.76 MT of China Clay, as shown in Fig 2.8.

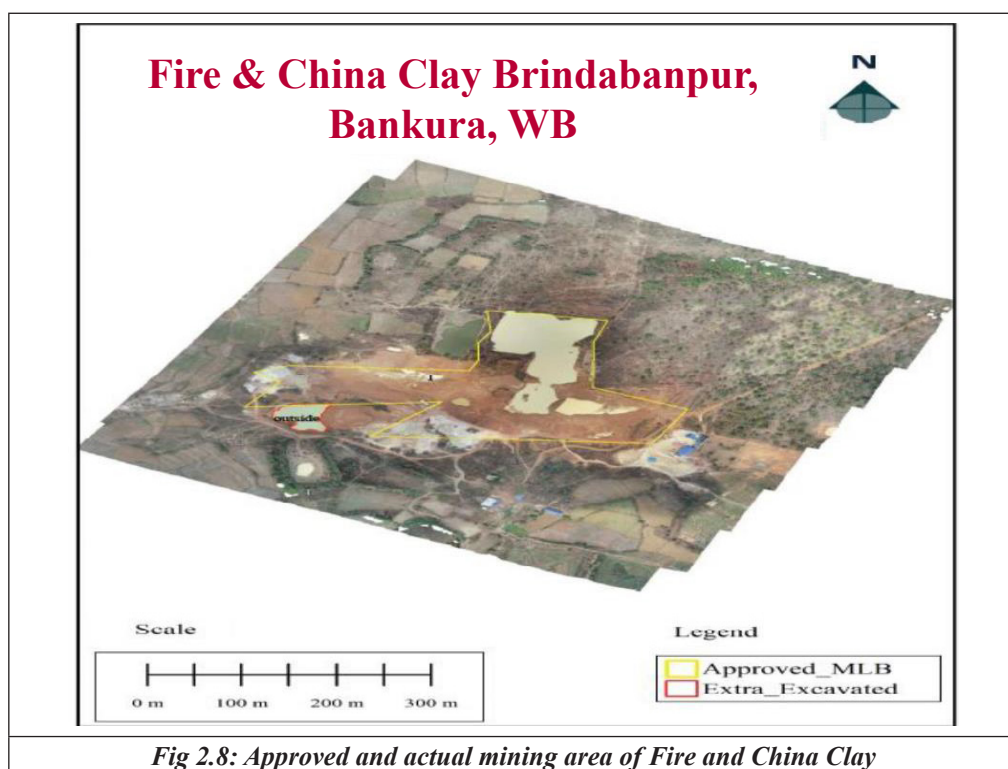


Fig 2.8: Approved and actual mining area of Fire and China Clay

²¹⁴ Rate of royalty of Granite: ₹ 1,260 per m³ w.e.f. October 2016 to January 2022 and the price of mineral is to be calculated @1.5 times of royalty.

The volume calculation of minerals, excavated in the Minor Mineral Quarry, using UAV, was as shown in **Table 2.10**.

Table 2.10: Excess and illegal mining of Fire & China Clay

Sl. No.	Plot No	Fire & China Clay excavated Volume (MT)	Total Volume (MT)	Area (ha)	Max. Depth (m)
1	Location1- 350, 350/817, 351(P)	1,06,229.84	1,06,229.84	1.832	6.8
2	Location 2- 350, 350/817, 351 (P)	13,732.78	13,732.78	0.188	2.1
3	Location 3- 350, 350/817, 351 (P)	1,020.23	1,020.23	0.035	2.1
4	Extra	3,770.76	3,770.76	0.209	2.1

Thus, the excess mining of Fire & China clay, as per the above estimation, was quantified as 3,770.76 MT, for which, the price of China Clay would amount to ₹ 2.55 lakh @ ₹ 67.5 per MT (₹ 45 x 1.5)²¹⁵.

Audit observed that the District office (DL&LROs) did not have data for illegal extraction beyond the lease boundaries. The coordinates of the encroached areas were not recorded and the areas were not periodically inspected, to detect the furtherance of illegal quarrying, if any.

In the Exit Conference L&LR and RR&R Department stated (July 2023) that technological solution would be adopted for effective monitoring.

Recommendation 9:

Government should direct the DMM to adopt advanced technology, such as satellite imagery, for surveillance activities and for detection of unauthorised quarrying and extraction beyond the lease boundaries.

²¹⁵ Rate of royalty of Fire & China Clay @ ₹ 45 per tonne and price of mineral is to be calculated @ 1.5 times of royalty.