



**Performance Audit Report
of the
Comptroller and Auditor General of India
on
Systems and Controls in assessment and collection
of mineral receipts
for the year ended 31 March 2021**



लोकहितार्थ सत्यनिष्ठा
Dedicated to Truth in Public Interest



Government of Bihar
Report No. 4 of the year 2022

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Preface

This Performance Audit Report of the Comptroller and Auditor General (C&AG) of India for the period 2017-21 containing the results of Performance Audit on “Systems and Controls in assessment and collection of mineral receipts” has been prepared for submission to the Governor of Bihar under Article 151 of the Constitution of India.

The instances mentioned in this Report are those, which came to notice in the course of Performance Audit which was concluded in September 2021.

Audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India based on the Auditing Standards of the International Organisation of Supreme Audit Institutions.

Executive Summary

Executive Summary

Receipts from Mines and Mineral in Bihar are administered by the Mines and Geology Department (MGD). Minor minerals found in Bihar are Sand, Stone, Murram, Earth and Brick earth, Mica, Silica, Quartz and Quartzite. Mining offices are situated in all 38 districts of the State, out of which, mining operation of major mineral (Limestone) is carried out in only Rohtas district. Excavation of minerals (other than Limestone, Sand, Stone and Earth) is not being currently carried out in Bihar.

(Paragraph 1.1, Page 1)

Audit observed that District Survey Reports remained incomplete due to lackadaisical approach of Mines and Geology Department.

(Paragraph 2.1, Page 10)

Coordinates of the sand *ghats* were plotted on Google Earth Pro and it was found, as per available free images that areas of five sand *ghats* of two districts approved for mining activities in Mining Plan were not correct. Further, mining area for sand extraction was given in the middle of high intensity electric tower (a permanent structure) in Paruhar sand *ghat* of Rohtas district, which was prohibited as per Sustainable Sand Mining Management Guidelines (SSMMG), 2020.

(Paragraph 2.2.1, Page 13)

It was observed that the area for sand mining was allotted in the prohibited area such as near bridges and in the middle of the river.

(Paragraph 2.2.2, Page 17)

The MGD did not take any action for auction of Mica, Quartz/Quartzite and Silica even after declaration of these as minor minerals.

(Paragraph 2.4, Page 22)

Audit observed that District Collector, Bhagalpur cancelled leases of nine sand *ghats* due to non-approval of modified Mining Plan by the MGD and refunded security deposit for ₹ 1.76 crore which was against the provisions of Bihar Sand Mining Policy, 2013. At the same time, the lease was not offered to the second highest bidder which resulted into a loss of revenue for ₹ 18.63 crore.

(Paragraph 3.1, Page 23)

Seven District Mining Offices (DMOs) did not include, an extra day of leap year, while calculating the settlement amount. Due to this, ₹ 16.05 crore of revenue was less realised, and apart from this contribution towards DMF Fund for ₹ 0.32 crore and Stamp Duty (SD) and Registration Fee (RF) for ₹ 1.28 crore, was also less realised.

(Paragraph 3.2, Page 25)

Lessees of sand *ghats* in eight districts paid royalty/settlement amount with delay ranging between one and 225 days. Interest on delayed payment at the rate of 24 per cent per annum amounting to ₹ 10.22 crore was not levied.

(Paragraph 3.3, Page 26)

The lease period of 2015-19 in eight DMOs was extended up to 31.12.2021 with the enhancement of 50 *per cent* settlement amount of previous year but the concerned DMOs did not realise ₹ 94.97 crore as security deposit during the extended period.

(Paragraph 3.4, Page 26)

In eight districts, SD and RF were not realised from the lessees due to non-execution of registered deed for the lease period 2015-19 and extended period up to September 2021, which led to a loss for ₹ 97.41 crore.

(Paragraph 3.5, Page 27)

Even after in-principle approval for Stone Quarry Block No. 10 at Bhadhokhra and Block-A & B at Khakhandua in Nawada district in February 2015 and December 2018, respectively, final settlement was not done. However, mining activities were noticed in Block No. 10 at Bhadhokhra during study of satellite images although, the said stone quarry was not working in that period.

(Paragraph 3.7.1, Page 29)

In-principle approval was accorded for 20.75 acres, (Mauja-Madurna, PS-Bhabhua) in Kaimur in July 2016 and Mining Plan was approved in September 2017. But, EC could not be obtained even after lapse of four years of approval of Mining Plan. The DMO did not take any action for cancellation of lease and forfeiture of security deposit.

(Paragraph 3.7.2, Page 31)

DMO, Sheikhpura prepared 30 stone blocks in the district for mining through public auction in which 9 blocks remained unsettled due to non-verification of stone block and lackadaisical approach of DMO.

(Paragraph 3.7.3, Page 32)

DM/DMO failed to realise settlement amount of ₹ 9.21 crore of stone lease of Block 7 of Bhadhokhra Mauja in Nawada after lapse of seven years from award of lease and four years from execution of lease agreement. Further, DM/DMO did not take any action for cancellation and resettlement of the lease on non-receipt of the settlement amount. Moreover, study of images of this lease on Google Earth Pro revealed that the mining activities were being carried out in this stone block during different periods.

(Paragraph 3.8.1, Page 33)

DMO, Gaya failed to realise the amount of 5th instalments of ₹ 7.40 crore against settled stone quarry of Mauja Gere, Block-1 (area 12.50 acres). DMO, Rohtas could not safeguard the Government revenue of ₹ 7.48 crore due to less extraction of limestone against the approved Mining Plan. Royalty and penalty for ₹ 61.08 crore could not be realised from 2,926 illegally operative brick kilns in 14 DMOs.

(Paragraphs 3.8.2, 3.10 & 3.13.2, Page 34, 36 & 40)

GIS study was carried out by Audit with the help of expert agency *i.e.* NIT, Patna. The study revealed that illegal mining was being carried out outside all the sand *ghats* covering in the Areas of Interest (AOI). The trend continued in the year 2019 and 2020 for the selected months for all the areas of interest. In the selected AOI,

analysis of satellite images revealed illegal mining during the periods. It was also noticed that the trend of illegal mining was increasing.

(Paragraphs 4.1 & 4.2, Page 43 & 53)

Analysis of available satellite images on Google Earth Pro in Sone sand *ghats* in three districts revealed that the mining activities were carried out in 12 sand *ghats* without obtaining EC. Mining activities were noticed in historical images of Google Earth Pro. Although, the lessees reported nil extraction from two sand *ghats* viz. Janpara-I and Anandpur of Patna district in 2018 and 2019, respectively and one sand *ghat* Chillhous of Bhojpur district in 2020.

(Paragraphs 4.3.1 & 4.3.2, Page 57 & 60)

Out of 20 planned software modules, only five were found functional. With respect to the Environmental Impact Assessment (EIA) notification, only facility to generate e-challans and block them manually was made functional. The e-challans ought to have security features as enumerated in the EIA notification. However, the same was not present as number of fake e-challans were found during audit. Further, the IT system was being used only for generating e-challans without controls as other modules were non-functional.

(Paragraph 4.4, Page 64)

In 14 sampled districts, 2,43,811 e-challans were generated using 46,935 unrealistic vehicles having registration number of ambulance, bus, auto rickshaw, car, motorcycles *etc.* shown to be used for transporting minerals ranging from 8 MT to 10.89 lakh MT.

(Paragraph 4.5, Page 66)

In 15,723 cases in 11 DMOs, 11 to 861 e-challans were generated for one vehicle in one day to carry sand. In four districts, the concerned lessees despatched stone during 2018 to 2020 and e-challans were generated more than 10 times to 142 times in a day for a particular vehicle.

(Paragraph 4.6, Page 68)

21,192 fake e-challans were used in different construction works in 16 works divisions.

(Paragraph 4.7, Page 70)

It was observed in 14 sampled DMOs that ₹ 91.86 crore were realised towards DMF Fund during December 2014 to September 2021 against which only ₹ 9.56 crore were spent. Thus, ₹ 82.30 crore remained parked and unutilised. Due to non-utilisation of the DMF Fund, its objectives remained unattended.

(Paragraph 5.1, Page 76)

Five DMOs did not ensure realisation of contribution towards DMF Fund for ₹ 1.87 crore from lessees of sand and stone quarries during 2018-21. Eleven DMOs, did not realise ₹ 0.62 crore from 6,164 brick kiln owners during 2017-18 to 2020-21.

(Paragraph 5.6, Page 79)

Two DMOs did not levy contributions towards DMF Fund for ₹ 21.16 lakh on royalty charged for excess extraction of sand. 10 DMOs did not levy interest on delayed payment of DMF Fund from lessees of sand *ghats* during 2016 to 2021 and

three DMOs did not levy interest on delayed payment of DMF Fund from lessees of stone quarries. In seven DMOs, ₹ 10.91 crore were deposited as royalty by contractors/agencies for extraction of ordinary earth but, the concerned DMOs did not levy the DMF Fund and Seigniorage Fee of ₹ 4.58 crore from the contractor/agencies.

(Paragraphs 5.7, 5.8 & 5.10, Page 79, 80 & 81)

Audit observed in 14 DMOs that illegal mining of minerals was continuously being reported during the years 2017-18 to 2020-21. Total 4,608 FIRs were lodged and 4,423 people were arrested in respect of illegal mining of minerals. A total amount of ₹ 113.30 crore was recovered during 2017-18 to 2020-21 from penalty on illegal mining.

(Paragraph 6.1, Page 84)

There was a loss of revenue of ₹ 4.20 crore in the shape of royalty/penalty due to non-co-ordination between District Transport Offices and District Mining Offices, in context of seized vehicles involved in transportation of illegal minerals as records of these vehicles were not transferred to concerned DMOs.

(Paragraph 6.2, Page 85)

There was a loss of revenue of ₹ 12.77 crore, due to illegal use of tractors registered for agricultural purposes in commercial activities.

(Paragraph 6.3, Page 85)

The database of the Department was not integrated with *VAHAN* software. In absence of this facility in software, 17,03,104 e-challans were generated with more than laden capacity of vehicles.

(Paragraph 6.4, Page 86)

In 14 sampled districts, 82,990 unfit vehicles were used for carrying of minerals during 2018 to 2020.

(Paragraph 6.5, Page 87)

In 13 DMOs, 20,700 certificate cases involving ₹ 229.43 crore were pending as of 31 March 2021.

(Paragraph 6.6, Page 87)

Several deficiencies were noticed during scrutiny of records related to manpower management, inspection of sand lease area, stone lease area, brick kilns, as provided by five DMOs for the period during 2017-18 to 2020-21. Further, adequate inspections of the concerned DMOs were not carried out by the Deputy Director of Mines (DDM) or any higher authority.

(Paragraphs 6.7 & 6.8, Page 88 & 89)

Chapter-1

Introduction

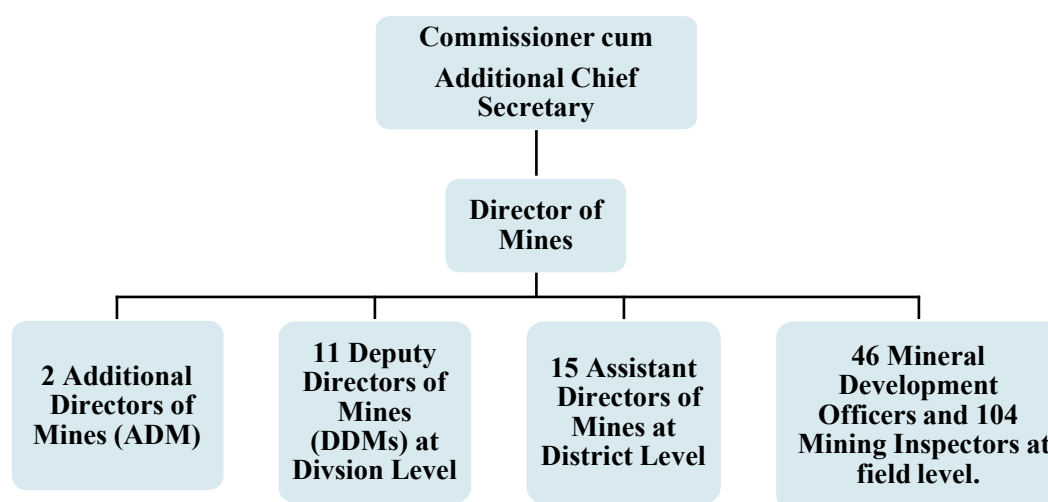
Chapter-1

1.1 Introduction

Receipts¹ from Mines and Minerals in Bihar are administered by the Mines and Geology Department (MGD). After re-organisation of MGD in 2006, Bihar remained with limited resources of minerals like Sand, Stone, *Murram*, Earth, Limestone, Mica, Silica, Quartz and Quartzite *etc.*

Limestone is the only major mineral available in Bihar. Minor minerals found in Bihar are Sand, Stone, *Murram*, Earth and Brick Earth, Mica, Silica, Quartz and Quartzite. Mining offices are situated in all 38 districts of the State, out of which, mining operation of major mineral (Limestone) is carried out only in Rohtas district. In terms of minor minerals, stone mining operations are carried out in six districts² and sand mining operations are carried out in 32 districts³. Excavation of minerals (other than Limestone, Sand, Stone and Earth) is not being currently carried out in Bihar. Apart from regulating mining operations, the MGD regulates grant/renewal of licenses to operate stone crushers and permits for excavation of brick earth, used in brick kilns.

1.2 Organisational set up



(Source: Mines & Geology Department)

1.3 Trends of Mineral Revenue

As per Rule 475 of Bihar Financial Rules, all Controlling Officers are required to reconcile their receipts and expenditure with the Accountant General (Accounts and Entitlement). Under Rule 37 of Bihar Financial Rules, it is the primary responsibility of the departmental authority to see that all receipts are correctly assessed, realised and credited to the Government account, under proper head, without undue delay.

¹ Receipts from Mines and Minerals in Bihar comprise royalty, rent, application fee, penalty, fine and interest on delayed payment of dues *etc.*

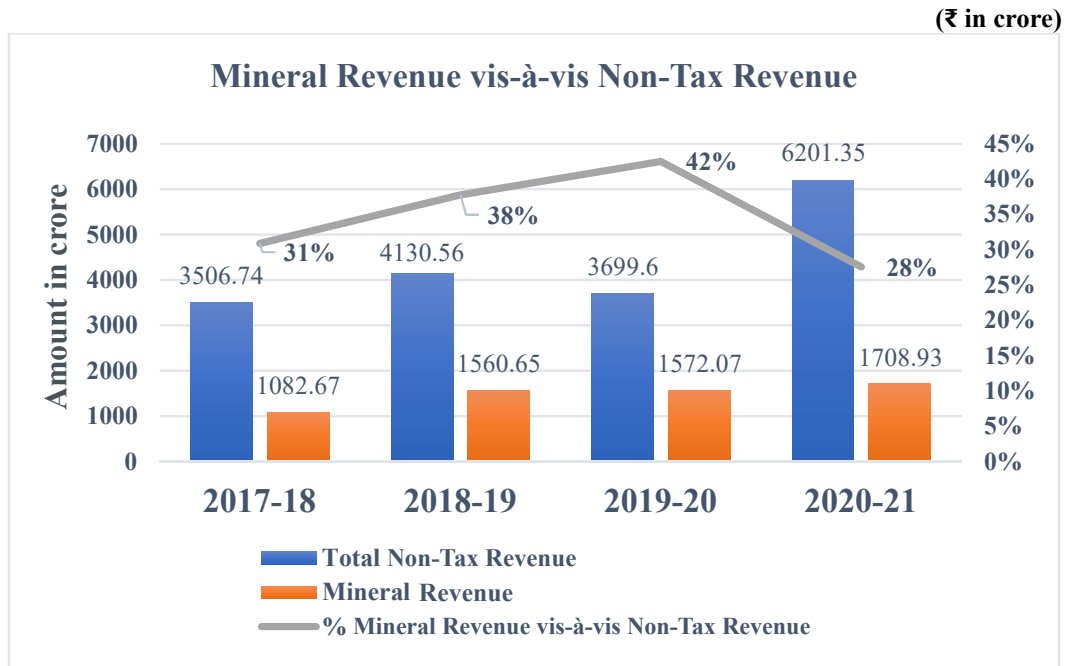
² Aurangabad, Banka, Gaya, Kaimur, Nawada and Sheikhpura.

³ Arwal, Aurangabad, Banka, Begusarai, Bhagalpur, Bhojpur, Buxar, East Champaran (Motihari), Gaya, Gopalganj, Jamui, Jehanabad, Khagaria, Kaimur, Kishanganj, Lakhisarai, Madhepura, Madhubani, Munger, Muzaffarpur, Nalanda, Nawada, Patna, Rohtas, Saharsa, Saran, Sheikhpura, Sitamarhi, Siwan, Supaul, Vaishali and West Champaran (Bettiah).

- **Trends of mineral revenue vis-à-vis total non-tax revenue**

Out of total non-tax revenue for ₹ 6,201.35 crore received in the State during 2020-21, mineral revenue was ₹ 1,708.93 crore (28 per cent). The details of total mineral revenue vis-à-vis total tax and non-tax revenue of the GoB during 2017-18 to 2020-21 are shown in the **Chart-1**:

Chart-1
Trends of mineral revenue vis-à-vis total non-tax revenue

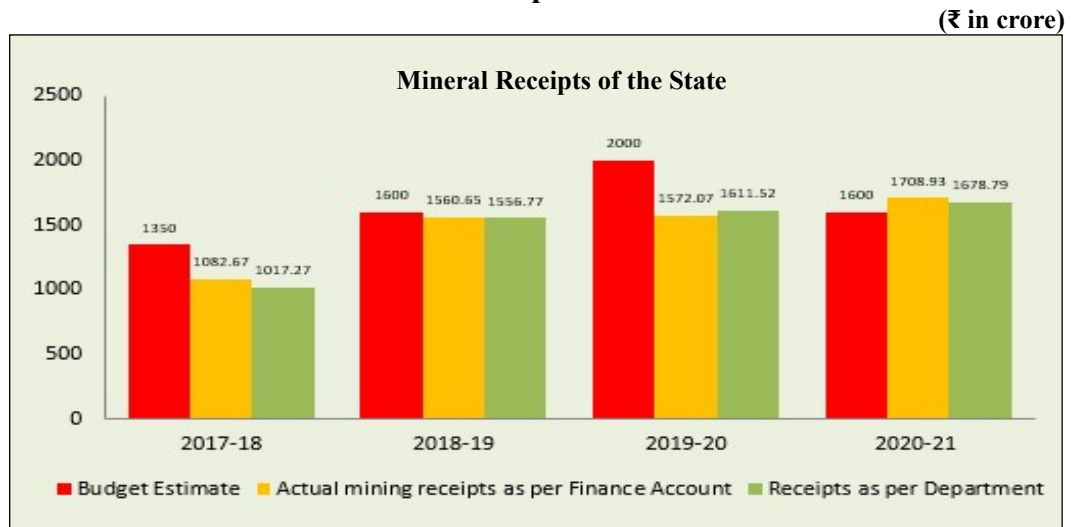


(Source: Finance Accounts, GoB)

- **Total Mineral receipts vis-à-vis the budget estimates**

The details of Budget Estimates (BEs) and Actual Receipts during 2017-18 to 2020-21 are given in **Chart-2**:

Chart -2
Mineral Receipts of the State



(Source: Budget Estimate as per Mines and Geology Department and Actual Receipts as per Finance Accounts)

The mineral-wise receipts during that period are given in **Table-1**:

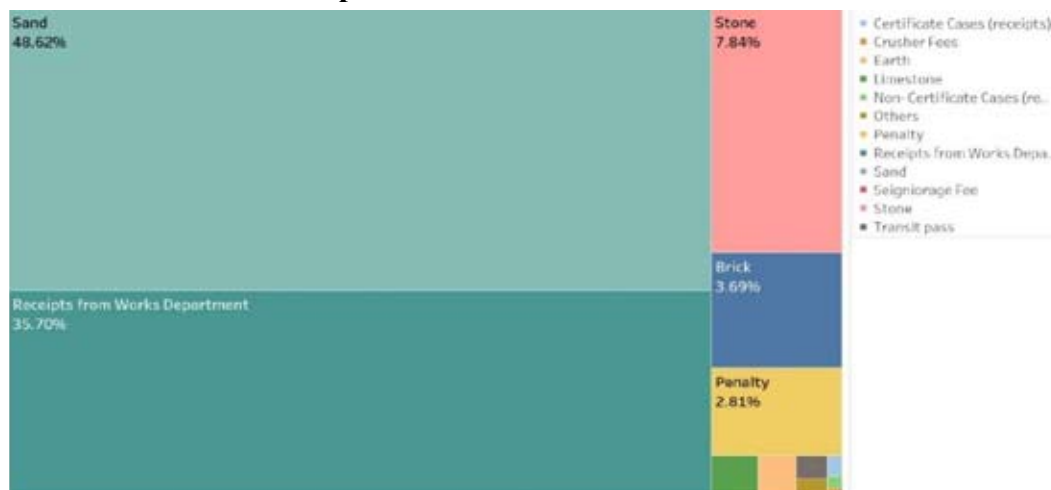
Table -1
Mineral-wise receipts

(₹ in crore)

Receipts from minerals and others	2017-18	2018-19	2019-20	2020-21
1. Minor minerals				
Brick	39.34	41.55	62.18	73.08
Sand	461.67	836.58	874.31	678.65
Stone	127.35	162.44	90.87	79.11
Crusher	0.50	0.39	0.18	0.26
Earth	4.85	7.02	4.17	6.78
Seigniorage Fee	00	00	0.42	772.07
Receipts from Works Department	353.53	443.84	523.97	
Certificate cases (receipts)	0.95	1.19	1.19	0.95
Penalty	13.50	55.34	41.60	54.63
Others	2.87	1.81	1.95	1.88
Non-certificate cases (receipts)	0.79	0.72	0.64	0.58
Transit pass	10.39	00	00	00
2. Major mineral				
Limestone	1.53	5.89	10.04	10.80
Total	1,017.27	1,556.77	1,611.52	1,678.79

(Source: Data furnished by the Department)

Chart - 3
Receipts from mineral and other sources



As evident from the table above, the State gets its mineral receipts mainly from minor minerals, which include Sand, Stone and Brick Earth while the contribution of major mineral to the receipts is negligible. The highest revenue of MGD was received from settlement of sand *ghats* followed by revenue realised from Works Department during 2017-18 to 2019-20. However, in the year 2020-21 receipts from Works Department was highest one, as most of the sand leases were not in operation and the MGD implemented the concept of Seigniorage Fee which was included as a receipt from works department in year 2020-21.

- **Non-reconciliation of Mineral revenues with Finance Accounts**

Audit observed that the MGD did not reconcile its accounts with Accountant General (Accounts and Entitlement), Bihar, Patna as required under Rule 475 of Bihar Financial Rules.

The MGD, Bihar issued directions (February 2020) to all District Mining Offices (DMOs) to deposit amount of royalty and different revenue obtained from brick kilns, certificate cases, stone, sand and works divisions to be received from field offices of the Department through Bank Draft or Demand Draft in the ICICI bank account bearing No. 057901002299 which was opened on 5 February 2020. This was temporary arrangements till 31 March 2020 as envisaged in letter.

Audit further observed in 14 sampled DMOs, that amount of royalty, fine, interest and other receipts received from different DMOs, were sent to the above bank account, but the reconciliation of the same had not been done with the concerned units as there was no record available in the MGD relating to reconciliation of the amount deposited in this bank account. Further, no correspondence was made by the concerned DMOs with the Department regarding reconciliation of the same. Due to non-reconciliation of above, Audit could not ascertain how much actual amount was deposited by different DMOs in bank account, relating to which head and neither the Department confirmed the receipts from DMOs. This is not only fraught with risk of misappropriation of revenue but also affect the revenue reconciliation process between Finance Accounts and MGD.

1.4 Audit Objectives

The objectives for the Performance Audit were to ascertain whether:

- systems, procedures for approval of mineral concessions and process for auction of mining contracts/quarrying leases were as per provisions contained in acts, rules and instructions issued by the Government from time to time;
- provision for the levy, assessment and collection of mining receipts were efficient and adequate to safeguard the revenue of the State;
- system for detection and prevention of illegal mining and its environmental impact assessment was in place;
- Mines and Mineral Development, Restoration and Rehabilitation Fund was managed and monitored as per Government instructions, acts and rules; and
- An effective internal control, monitoring mechanism and inter departmental co-ordination were in place to prevent the leakage of revenue.

1.5 Audit Criteria

The audit criteria for the performance audit were derived from the following sources:

- Mines and Minerals (Development and Regulations) Act, 1957;
- Mineral Concession (MC) Rules, 1960;
- The Indian Stamp Act, 1899 and Indian Registration Act, 1908;
- Mineral Conservation and Development (MCD) Rules, 1988;
- Bihar Minor Mineral Concession (BMMC) Rules, 1972;
- Bihar Minor Mineral Concession(BMMC) (Amendment) Rules, 2014;
- Bihar Minor Mineral Rules, 2017;
- Bihar Minerals (Prevention of illegal mining, transportation and storage) (Amendment), Rules, 2014;

- Bihar Minerals (Concession, Prevention of illegal mining, transportation and storage), Rules, 2019;
- Bihar Sand Mining Policy 2013 and 2019;
- Bihar Financial Rules ; Bihar Budget Procedure;
- Bihar District Mineral Foundation Rules, 2018 (notified on 23rd May 2018); National Mineral Exploration Trust Rules, 2015;
- Air (prevention and control of pollution) Act, 1981;
- Motor Vehicle Act, 1988 and Central Motor Vehicles Rules, 1989;
- Bihar Motor Vehicles Taxation, Rules, 1994;
- Ministry of Environment, Forest and Climate Change notification, 2016;
- Sustainable Sand Mining Management Guidelines (SSMMG) 2016;
- National Green Tribunal/Court orders;
- The Bihar and Orissa Public Demand Recovery (PDR) Act, 1914; and
- Notifications and circulars, executive and departmental orders and instructions issued by the Department from time to time.

1.6 Status of previous Audit Report on “Mining Receipts - Levy and Collection of Royalty, Fee and Rent”

Audit on “Mining Receipts - Levy and Collection of Royalty, Fee and Rent” for the period of 2013-14 to 2016-17 was conducted during April to June 2017 and included in the Report of the Comptroller and Auditor General of India on Revenue Sector for the year ended 31 March 2017. The objectives of the report were mainly to ascertain the non-compliances to the various rules governing mining receipts and findings of the report were mostly on non-levy of mineral receipts. The report is under consideration before Public Account Committee (PAC) for discussion.

1.7 Scope and Methodology

Sampling of districts was carried on the basis of the minerals as shown in **Table-2**:

Table - 2

Category	Major	Minor	
Mineral	Limestone	Stone	Sand
Available in districts	One	Six	32
Sample selected	One district (Rohtas) selected.	All six districts (Aurangabad, Banka, Gaya, Kaimur, Nawada and Sheikhpura) selected.	Six Districts (Bhagalpur, Bhojpur, Nalanda, Patna, Siwan and Vaishali) on the basis of Stratified Random sampling. In addition to this, sand mining also carried out in the selected six districts of stone and one district of limestone.

Thirteen mining districts⁴ were selected on the basis of above sampling methodology. In addition to above, the apex unit *i.e.* MGD was also selected. Further, one district of Saran was also selected under sand based on the recommendation of Principal Secretary, MGD in the Entry Conference. The Entry Conference with the Principal

⁴ Aurangabad, Banka, Bhagalpur, Bhojpur, Gaya, Kaimur, Nalanda, Nawada, Patna, Rohtas, Sheikhpura, Siwan and Vaishali.

Secretary, MGD, GoB was held on 3 September 2021 to explain the objectives of the PA, audit criteria, audit scope, methodology and to elicit views/concerns of the Department on the issue.

An Exit Conference on conclusion of the PA was held on 17 May 2022 to discuss the audit findings and for obtaining responses of the State Government on the findings. The Additional Chief Secretary cum Mines Commissioner appreciated the audit efforts and findings and assured to provide the reply of the Department at the earliest. The Department furnished reply of six paragraphs which has been incorporated in the PA Report.

The methodology adopted for attaining the audit objectives with references to audit criteria was scrutiny of records in the Department (Directorate) and in the selected districts for the years 2017-18 to 2020-21, analysis of the mining database, raising audit queries, physical verification, use of Geographic Information System (GIS) and remote sensing data, obtaining replies and discussion of audit findings with the management.

Sone river was selected for Geo-spatial study as sand *ghats* of Sone river are major contributors to sand mineral revenue. For the Geo-spatial imaging study of sand minerals of Sone river, National Institute of Technology (NIT), Patna was engaged as expert agency. For selection of sand *ghats* for GIS study, all sand *ghats* of Sone river in three districts (Patna, Bhojpur and Rohtas) were analysed through Google Earth Pro with the help of Geo-coordinates provided by the MGD, out of which eight sand *ghats* of above three districts (Area 172.10 hectare) were selected where issues like movement of earth mover's vehicles seen in outside mining leased area and extraction seen in the area where nil extraction was reported by lessee. However, the GIS study was carried out for two years only where data for six different months⁵ was taken for the study. Due to COVID-19 pandemic in year 2020-21 and expiry of mining lease during the same period, year 2020-21 has not been considered for GIS study. Scopes of work for Geo-spatial study are as under:

- (i) Identification/verification of allotted sand mining areas.
- (ii) Comparison of Geo-coordinates between actual and approved Mining Plan.
- (iii) Comparison of Geo-coordinates between actual and approved Mining plan along with calculation of actual mining area (in hectare).
- (iv) Identification of mining in prohibited months (July, August and September).

For the preliminary analysis, areas of only five *ghats* (covering eight sand *ghats*) were selected for GIS study. As some of the sand *ghats* were nearby, three areas of interest were selected by the expert agency for analysis of mined areas through GIS images. The areas of interest covering above *ghats* have been shown in **Figure 1 to 3**. As the study demanded, the actual calculation of sand mining area, high-resolution satellite images were required to study the minute features of the selected areas. For the detail analysis, the Linear Imaging and Self Scanning Sensor (LISS-IV) images were procured by expert agency (NIT, Patna) from National Remote Sensing Centre (NRSC), Hyderabad for specific time periods and locations specified above.

⁵ November 2018, February 2019, June 2019, November 2019, January 2020 and March 2020.

Area of Interest

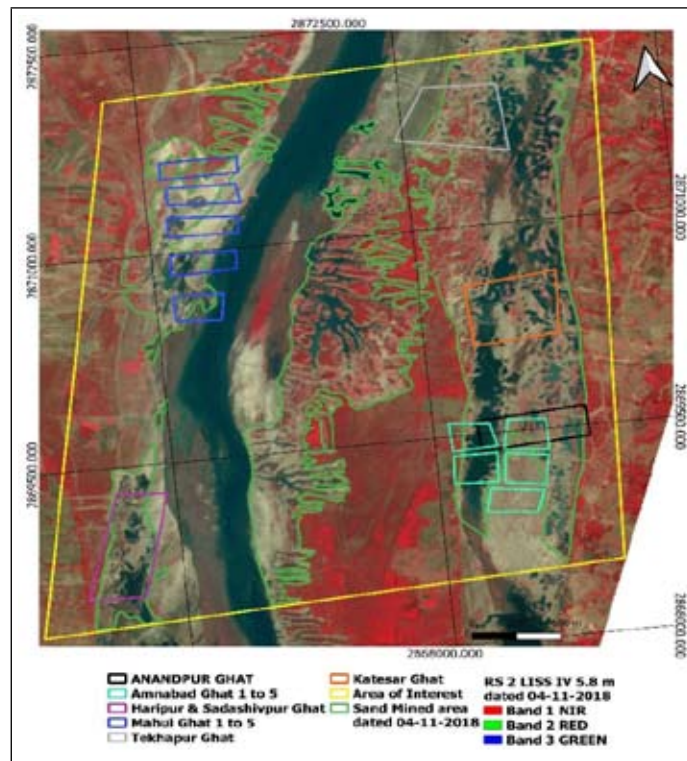


Figure 1: Area of Interest-I (AOI-I) covering Anandpur, Amnabad, Haripur and Sadashivpur, Mahui, Tekhapur and Katesar sand *ghats*.

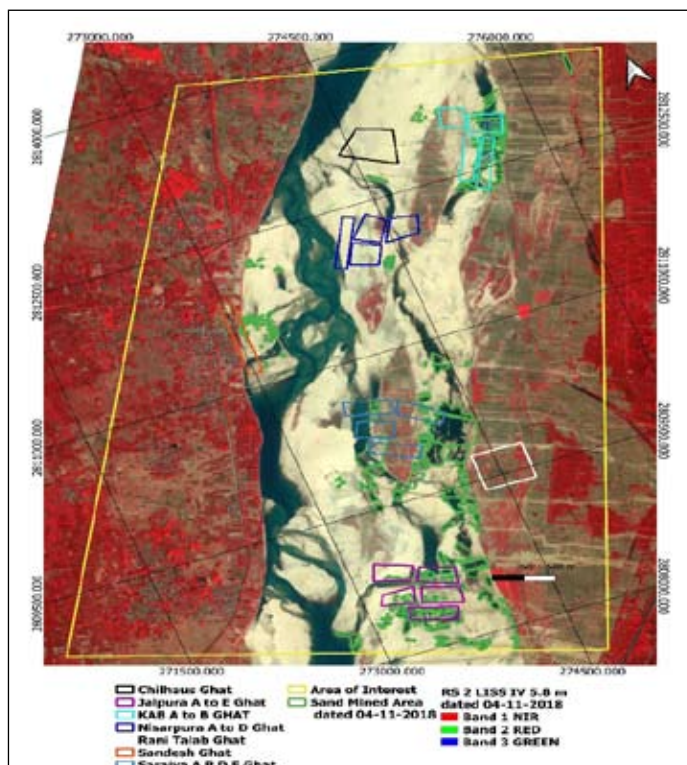
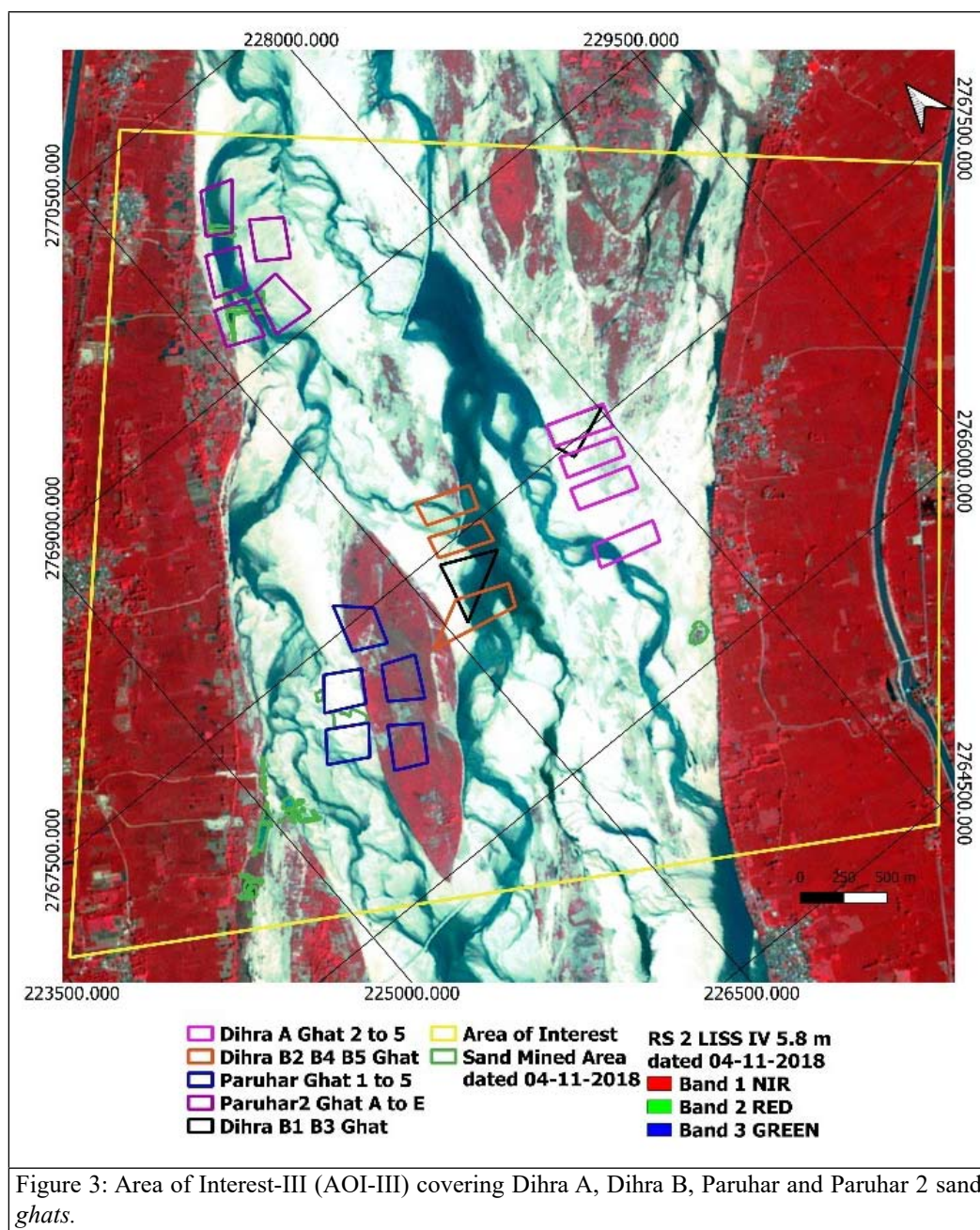


Figure 2: Area of Interest-II (AOI-II) covering Chilhaus, Jalpura, Kab and Nisarpura, Rani Talab, Sandesh, and Saraiya sand *ghats*.



In above GIS images, red colour denotes vegetation area, dark blue to blue colour denotes water and river sand appears in bright white to dull white (yellow).

Chapter-2

Systems and procedures for approval of mining concessions

Chapter-2

Systems and procedures for approval of mining concessions

As per Rule 22 of Bihar Minerals (Concession, Prevention of Illegal Mining, Transportation and Storage), Rules 2019, any mineral concession in the form of a mining lease shall be settled by means of public auction-cum-tender only through e-bidding mode and as per the procedure laid in the latest notification issued by State Government in this regard or as decided by the State Government in this regard from time to time.

The Hon'ble Supreme Court passed orders (February 2012) regarding submission of Mining Plan and Environmental Clearance (EC) before the grant of mining lease of minor minerals. In view of Hon'ble Supreme Court's orders, the State Government has made provisions (August 2014) in its Minor Minerals Concession (MMC) Rules, 1972 for submission of Mining Plan and EC report before grant and renewal of mining leasehold areas of minor minerals.

MGD issued a notification on 22 July 2014, for settlement of sand *ghats* for a period of five years (2015-19) through tender-cum-auction basis to eligible highest bidders.

MGD auctioned (October to December 2014), sand *ghats* for the period during 2015 to 2019, where a district as whole was auctioned and river stretch *etc.* as whole was given to the finalised lessees. As per Sand Mining Policy, 2013, the successful bidders of the sand *ghats* had to submit the Mining Plan within 90 days and EC Certificate within 90 days (in case of mining area less than 50 hectare) or within 120 days (in case of mining area equal to 50 hectare or more) from the date of in-principle approval. The successful bidders had to prepare the Mining Plan (*i.e.* to identify and demarcate the areas of mining) for district allotted to them from MGD empanelled Recognised Qualified Person (RQP) and the same Mining Plan submitted by lessees was approved by the MGD in 2015. As requirements of EC were mandated by notification No. SO-141(E) of MoEFCC, GoI on 15 January 2016, the Hon'ble NGT stayed (February 2016) extraction of sand in whole Bihar as Environment Clearance (EC) was not obtained by the lessees of each district. There upon, in compliance of Hon'ble NGT's order, all lessees had to obtain EC on the Mining Plan from competent authority.

As per notification No. SO-141(E) of MoEFCC dated 15 January 2016, District Survey Report (DSR) of sand mining or river-bed mining and mining of other minor minerals had to be prepared for each district of the State. Further, MoEFCC also reminded (May 2018), Chief Secretary to prepare DSR of each minor mineral as notified in January 2016. The MGD again initiated (August 2019) auction of sand *ghats* for 2020-24 and finalised in eight districts (out of audit sample). However, the process was stayed by the NGT as the auction was carried out without preparation of DSRs. The DSRs were yet to be prepared by the Department as highlighted in the paragraph below.

Audit Findings

2.1 Incomplete District Survey Reports

The main objectives of the preparation of District Survey Reports (as per the SSMM Guidelines, 2016) are to ensure the following;

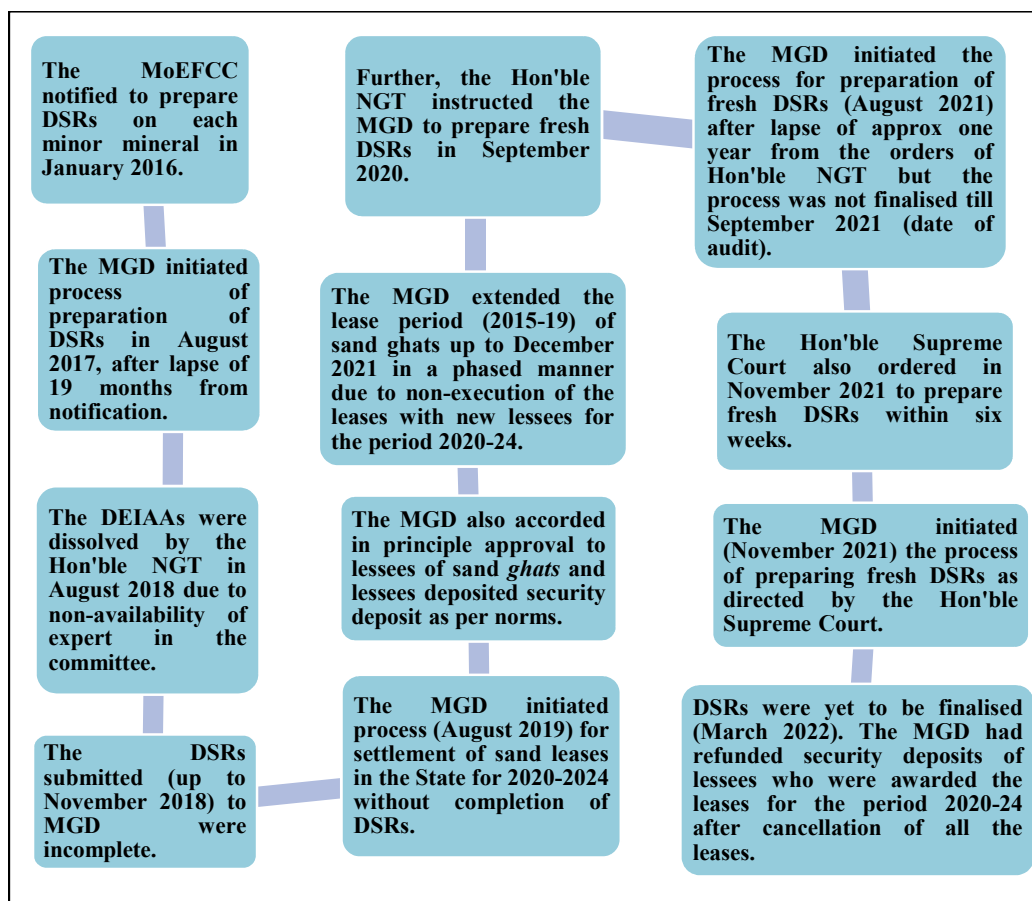
- Identification of areas of aggradations or deposition where mining can be allowed;
- Identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited; and
- Calculation of annual rate of replenishment and allowing time for replenishment after mining in that area.

For preparation of a DSR, a survey shall be carried out by the District Level Environment Impact Assessment Authority (DEIAA) with the assistance of Geology Department or Irrigation Department or Forest Department or Public Works Department or Ground Water Boards or Remote Sensing Department or Mining Department in the district.

Further, the DSR shall be prepared for each minor mineral in the district and draft shall be placed in the public domain by keeping its copy in collectorate and posting it on district's website for 21 days. The comments received shall be considered and if found fit, shall be incorporated in the final report to be finalised within six months by DEIAA. The DSR shall form the basis for application for environment clearance, preparation of report and appraisal of project. Sub-Divisional Committee under chairmanship of Sub- Divisional Magistrate (SDM) shall visit each site for which environment clearance has been applied for and make recommendation on suitability of site for mining or prohibition thereof. The report shall be updated once every five years.

Audit observed that the MGD took following steps as mentioned in **Chart-4** below for preparation of DSR for each district:

Chart-4
Details of steps taken by MGD to prepare DSR for each district



From the above, it may be seen that the MGD initiated (August 2017) the process of preparation of DSRs after lapse of 19 months from notification (January 2016) issued by Ministry of Environment, Forest and Climate Change (MoEFCC), GoI and the DSRs deemed incomplete after lapse of four and a half years of initiating the process of their preparation, even after payment of ₹ 20.40 lakh (30 per cent of payable amount) as per available records. Further, while scrutiny of DSRs for sampled districts, it was noticed that none of the objectives specified were fulfilled and the MGD termed then incomplete owing to non-availability of replenishment study. The mineral wealth of the districts required to be worked out was also not available in the DSRs. In the meantime (September 2018), DEIAAs were dissolved by the Hon'ble NGT, as most of the members were officers/ bureaucrats, who lacked expertise, experience and scientific knowledge in the matters of environment.

Audit further observed that the MGD initiated (August 2019) the process of tender for the lease of sand *ghats* in all districts for 2020-2024 without completion of DSRs. In principle approvals were accorded by the concerned District Collectors and security deposits were also realised from the new lessees. But, the same did not materialise as in the light of the Hon'ble NGT orders, the Department stayed settlement process of sand *ghats* due to incomplete DSRs. While preparation of DSRs was mandatory as per SSMM Guidelines, 2016, MoEFCC notification, 2016 and reminder letter in 2018 of GoI, however, the MGD did not adhere to the same.

On this being pointed out, the MGD (May 2022) stated that the proposed DSRs were sent to SEIAA, as the DEIAAs were dissolved as per orders of Hon'ble NGT. The DSRs were prepared in 2018 and updated in 2019. On the basis of updated DSRs, sand *ghats* were settled through e-auction. However, SEIAA took a long time to accord EC for settled sand *ghats*, and in the meantime, a legal case was filed before the Hon'ble NGT and DSR of Banka district was quashed by the tribunal on 14 October 2020. In respect of this verdict, the Government moved to the Hon'ble Supreme Court and the court modified the orders of Hon'ble NGT and directed State (November 2021) to prepare fresh DSRs. In compliance, DSRs of 16 out of 38 districts were approved by SEIAA as on May 2022.

Reply of the Department was not acceptable as the Department made inordinate delay of 19 months in initiating the process (August 2017) for preparation of DSRs. In addition to this, the MGD has accepted that the delay was on the part of SEIAA also. Audit also found that though the DSRs were prepared in 2018 and updated in 2019, but these were found to be incomplete. Moreover, no evidence was found on record that the DSRs were approved by SEIAA. As such, auction could not be implemented and lessees continued to operate at old rates. The Department would have earned revenue, had the DSRs been prepared by the MGD before the tendering process and the leases executed with new lessees. But, due to incomplete DSRs, the Department had to refund the security deposits (up to March 2022) to the lessees. The Department should fix responsibility of the concerned for noncompletion of DSRs and non-appointment of experts in DEIAAs.

2.2 Non-verification of Mining Plan by the Competent Authority

According to the Guidelines issued by the Indian Bureau of Mines (IBM), GoI under Mining Framework for Minor Minerals, on receipt of an application for grant of mining lease for undertaking mining operations for minor minerals, the State Government shall take decision to grant precise area for the said purpose and communicate such decision to the applicant. On receipt of the communication from the State Government of the precise area to be granted, the applicant shall submit a Mining Plan, within a period of three months from the date on which such communication is received by the lessee. In the guidelines, for preparation of Mining Plan and EC report, it has been specifically and categorically mentioned that the area must be precise and must be certified by the Government.

As per Bihar Sand Mining Policy 2013, the lessees of sand *ghats* had to get Mining Plan prepared from RQP and the same was to be approved by the MGD. Further, the competent authority (DEIAA/SEIAA/MoEF)¹ was to provide EC based on this Mining Plan.

Audit scrutinised the Mining Plan of sand *ghats* of four districts² with reference to Geo-coordinates mentioned in Mining Plan through Google Earth Pro and observations are highlighted in the succeeding paragraphs.

¹ SEIAA - State Environment Impact Assessment Authority.

MoEF - Ministry of Environment and Forest.

² Banka, Bhojpur, Patna and Rohtas.

2.2.1 Approval of incorrect Geo-coordinates

Audit analysed total 86 sand *ghats* of Sone river in three districts³ and 20 sand *ghats* of Chandan river in Banka district. Coordinates of the above *ghats* were plotted on Google Earth Pro and it was found, as per available free images, that areas of five sand *ghats* of two districts⁴, approved for mining activities in Mining Plan, were not correct. Further, the expert agency also highlighted above such deficiencies, as shown in **Figures 4 to 11**:

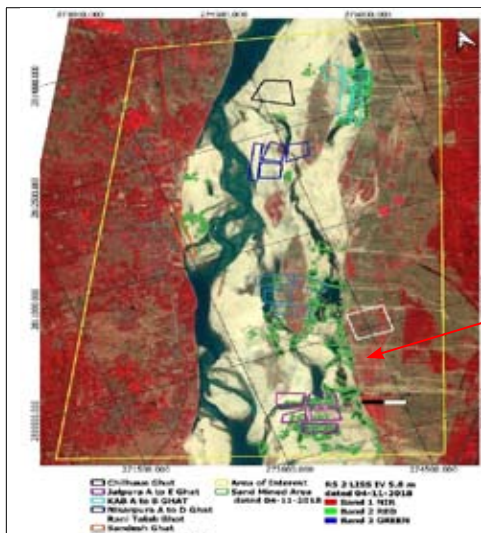


Figure 4: LISS-IV Satellite image analysed by NIT, Patna as sand *ghat* Rani Talab demarcated by white polygon shown away from riverbed.



Figure 5: Satellite image of Rani Talab sand *ghat* of Patna district in January 2019 from Google Earth Pro.

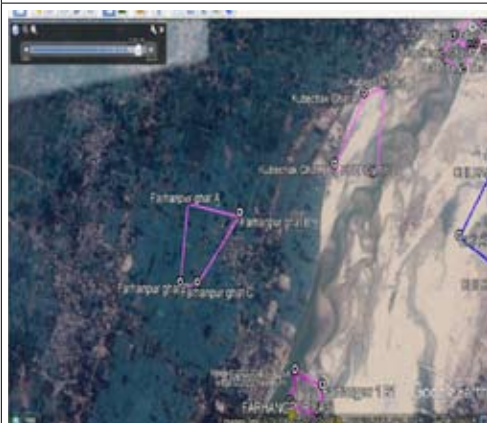


Figure 6: Screenshot satellite image of Farhangpur sand *ghat* in Bhojpur district shown vegetation area.



Figure 7: Screenshot satellite image of Manachak sand *ghat* in Bhojpur district shown agricultural area.

³ Bhojpur, Patna and Rohtas.

⁴ Bhojpur and Patna.

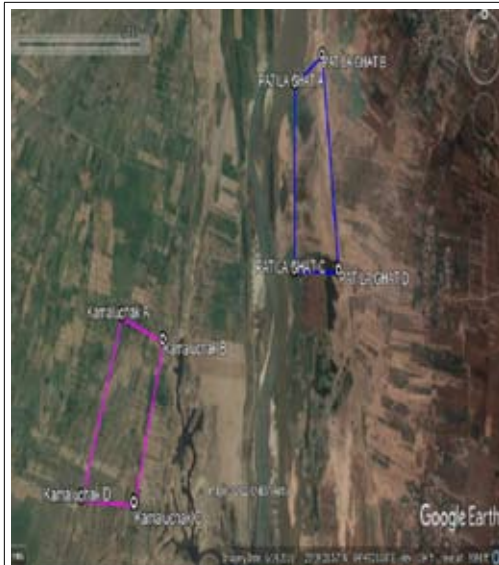


Figure 8: Screenshot satellite image of Kamluchak sand *ghat* in Bhojpur district shown away from riverbed.



Figure 9: Screenshot satellite image of Sandesh sand *ghat* in Bhojpur district shown some part is away from riverbed.



Figure 10: Screenshot satellite image of Baisa sand *ghat* in Banka district shown some parts is away from riverbed due to wrong coordinates.



Figure 11: Screenshot satellite image of Jitapur sand *ghat* in Banka district shown some part is away from riverbed due to wrong coordinates.

It may be seen from the above images that the areas approved for extraction of sand as per approved Mining Plans and EC were found in private patta (agricultural/residential) lands in place of riverbed. The same irregularities were observed in Baisa and Jitapur sand *ghats* of Banka districts due to wrong Geo-coordinates captured in Mining Plan as some of the coordinates were at habitation (Figures 10 and 11). Audit further observed that in the Mining Plan of Rani Talab *ghat* and other sand *ghats*, the reserve of sand was estimated up to three metres depth of sand, which shows that the Mining Plans were prepared for paperwork only as the coordinates of the above sand *ghats* were incorrect.

Audit further observed that mining area for sand extraction was given in the middle of high intensity electric tower (a permanent structure) in Paruhar sand *ghat* of Rohtas district, which was prohibited as per Sustainable Sand Mining Management Guidelines (SSMMG), 2020 as shown in **Figures 15 and 16**:

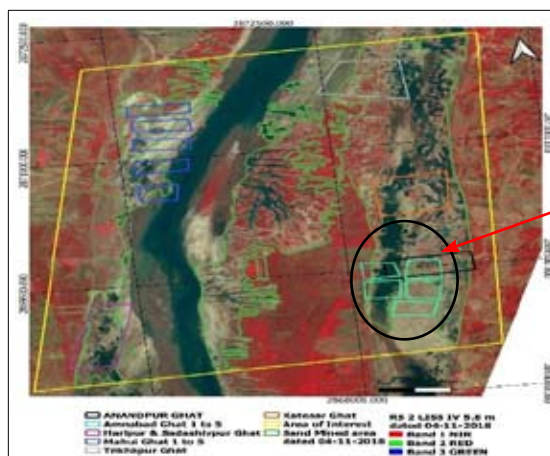


Figure 12: NIT, Patna also analysed overlapping of Amnabad into Anandpur sand *ghat* as shown above.



Figure 13: Screenshot satellite images shown that area of Amnabad sand *ghat* overlapping into Anandpur sand *ghat*.



Figure 14: Screenshot satellite image of Hurka sand *ghat* in Rohtas district, coordinates of Block 4 and 5 shown same.



Figure 15: High intensity electric structure was shown in circle which was located in approved mined area of Paruhar sand *ghat*.

It may be seen from the above that areas approved for extraction of sand as per the approved Mining Plan and EC were not correct as these areas were in prohibited location.

Further, joint physical verification of eight sand *ghats* in three districts was conducted (November 2021) by the Audit team along with concerned Circle Officers (COs) and DMOs and found that no demarcation of any sand *ghat* was done. In the case of two sand *ghats* (Paruhar and Paruhar-2), lying in river khesra number was found mentioned in the Mining Plan, but could not be verified during physical verification. In this regard, CO Dehri (Rohtas) stated that no demarcation of concerned sand *ghats* and approved mining area of sand *ghats* lying in the river, and high intensity electric tower was found in approved sand mine area.

Images as shown in **Figures 16 to 19:**



Figure 16: Joint Physical verification done at Paruhar sand *ghat*.

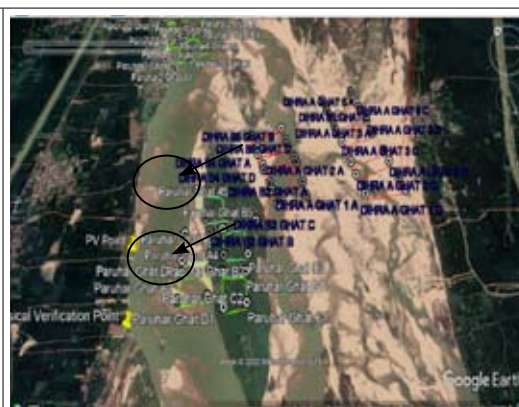


Figure 17: Physical verification point shown in screenshot of satellite images.



Figure 18: Joint Physical verification image of Mahui sand *ghat*.



Figure 19: Physical verification point of Mahui sand *ghat* shown in screenshot of satellite image.

Audit also analysed the Geo-coordinates of stone mined areas with reference to approved Mining Plan and EC and observed that in three DMOs⁵ only single coordinate instead of four (required to form area) has been mentioned in approved Mining Plan as well as EC of stone leases. In the absence of complete coordinates, Audit could not ascertain actual demarcation/boundary of the mining area of stone leases. Due to non-availability of actual boundary, it was also very difficult to find the allowed extraction area. Cases of single coordinate images are shown in **Figures 20 to 22:**

⁵ Gaya, Nawada and Sheikhpura.

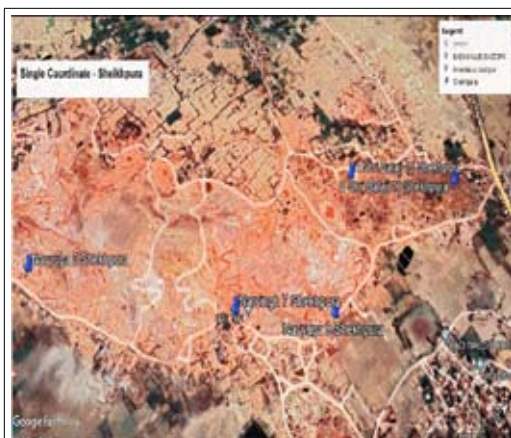


Figure 20: Single coordinate of Sheikhpora district.



Figure 21: Single coordinate of Nawada district.

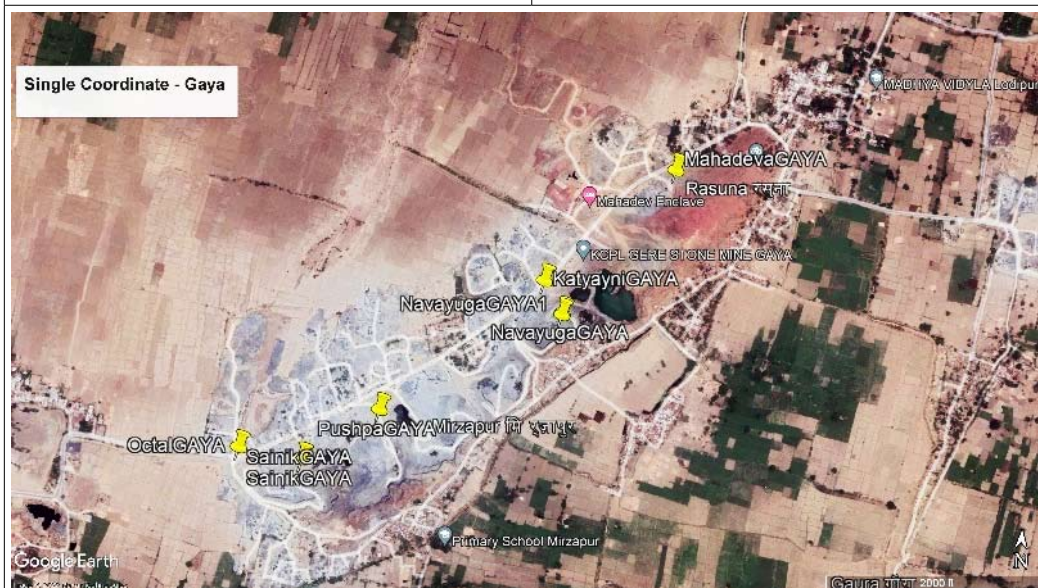


Figure 22: Single coordinate of Gaya district (Stone).

2.2.2 Mining of sand in prohibited area

As per Bihar Sand Mining Policy, 2013, the sand mining should be carried out leaving five metres of both sides of river and no mining should be done in 300 metres range of highway and rail bridge. As per SSMMG 2016, sand mining would not be undertaken in any area located within 200 to 500 metres from bridges.

2.2.2.1 Mining of sand near bridges

During study of the satellite images of Banka district through plotting of Geo-coordinates given in approved Mining Plan on Google Earth Pro, it was found that, the allotted area of Bisunpur sand *ghat* was at 113 metres from Dhaka more Banka highway bridge and the allotted area of Maldaun sand *ghat* was at 117 metres from Banka rail bridge. Further, Audit observed that mining activities were being carried out on either sides of Banka rail bridge near Manjhira sand *ghat*. Images are shown in **Figures 23 to 25**:

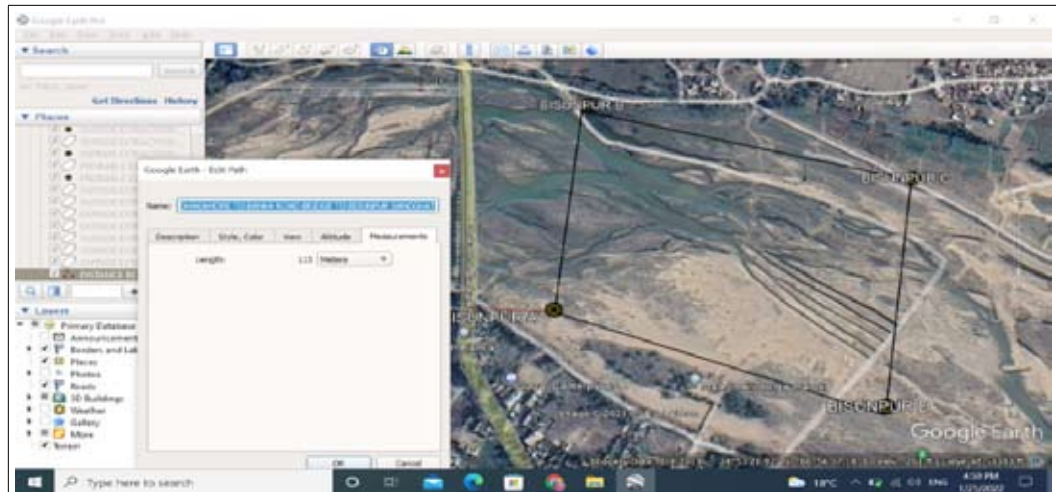


Figure 23: Bisunpur sand ghat of Banka district, area allowed for mining was only 113 metres away from road bridge.

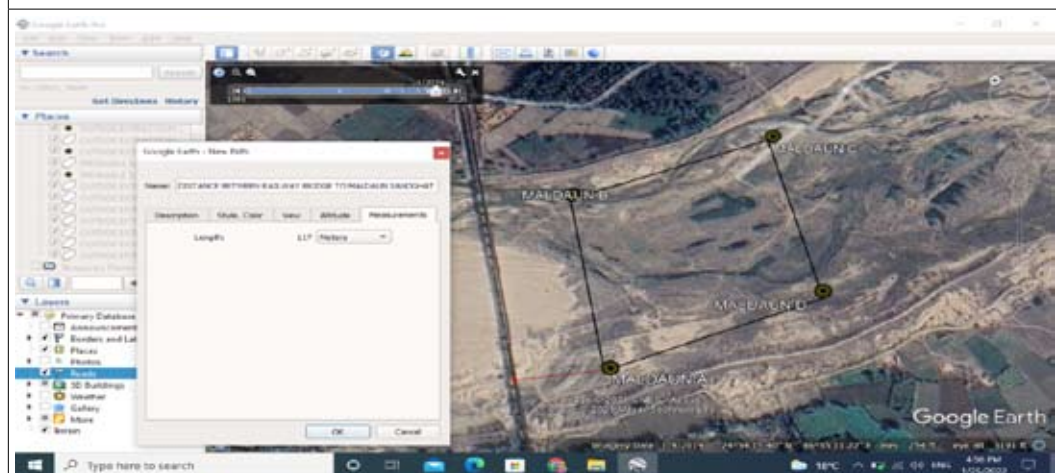


Figure 24: Maldaun sand ghat of Banka district, area allowed for mining was only 117 metres away from rail bridge.

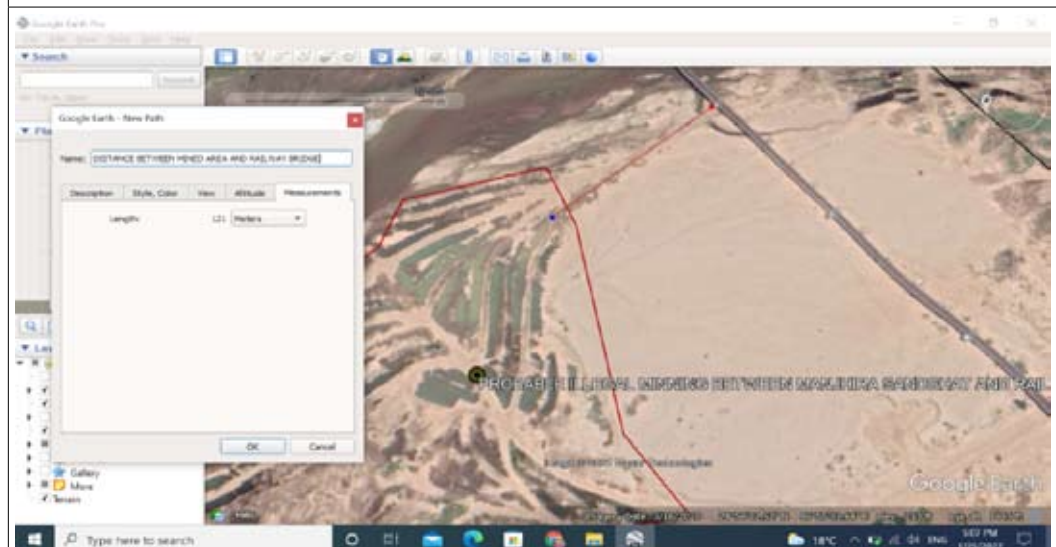


Figure 25: Illegal mining activities carried out only 121 metres away from railway bridge near Majhoni sand ghat.

2.2.2.2 Allotment of area for mining of sand in the middle of river

Area of eight sand *ghats*⁶ of Banka district was allotted in the middle of Chandan river which was non-adherence to Bihar Sand Mining Policy, 2013, as mining area should be allotted leaving five metres both side of river bank. Images are as shown in **Figures 26 to 32**:



Figure 26: Baisa sand *ghat* area allowed for mining was in middle of the river.



Figure 27: Bisunpur sand *ghat* area allowed for mining was in middle of the river.



Figure 28: Govindpur sand *ghat* area allowed for mining was in middle of the river.

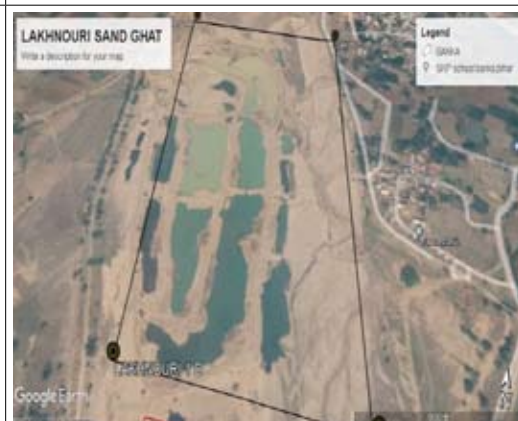


Figure 29: Lakhnouri sand *ghat* area allowed for mining was in middle of the river.

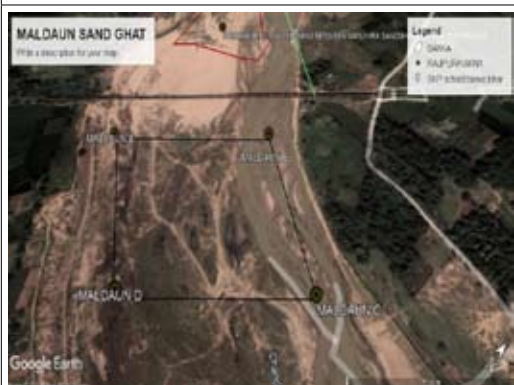


Figure 30: Maldaun sand *ghat* area allowed for mining was in middle of the river.



Figure 31: Rajipur/Kakna sand *ghat* area allowed for mining was in middle of the river.

⁶ Baisa, Bisunpur, Govindpur, Lakhnouri, Majhoni, Maldaun, Patwe Bhorwa and Rajipur/Kakna.



Figure 32: Majhoni and Patwe Bhorwa sand ghat area allowed for mining was in middle of the river.

Audit further observed in eight DMOs⁷ that the lessees of sand *ghats* did not prepare Mining Plan for the extended period which was mandatory before starting of mining operations. The Mining Plan submitted by lessees before extension was valid for 2015-2019 or before expiry of lease whichever is earlier. But extractions of sand were done by the lessees continuously without Mining Plan up to December 2021. In the absence of Mining Plan, it could not be ascertained how much sand was to be extracted from a particular sand *ghat* without adverse effect on environment.

Thus, the correctness of the Geo-coordinates referred to in the Mining Plan or EC were not verified by the MGD or SEIAA at the time of approval of the Mining Plan or EC respectively. Based on these plans with incorrect Geo-coordinates, license for operation of sand *ghats* was issued by concerned District Collector. Thus, it was evident that the MGD and EC granting authority did not verify the Mining Plan submitted by the concerned lessees. Failure to adhere to the norms prescribed for Mining resulted in illegal mining (as highlighted in **Chapter-4**) as the proper areas were neither demarcated for mining nor verified. At the same time, it also defeated the purpose for getting EC.

On this being pointed out, the MGD stated that the Mining Plan submitted by the lessees and made by an RQP were examined and approved by an interdepartmental committee, under the chairmanship of Director, Mines in which representatives of the Department of Environment, Forest and Climate Change, and Pollution Control Board were the members. These Mining Plans were approved in 2016 and SEIAA after examination, granted EC to the lessees. The sand *ghats* auctioned in 2015 were adjacent and had a common boundary between them, hence one of their Geo-coordinates is seen overlapped but their area does not overlap and they are distinct and different. The environmental sanction of the *ghats* was accorded in 2016, while the photographs appended are of 2018 or even of 2020. The Environmental Clearance form submitted for grant of EC contains information related to residential area, railway and road bridges, high tension wires and towers *etc.* SEIAA grants EC after its scrutiny. Thus, structures found in the lease areas are probably structures made later.

⁷ Aurangabad, Banka, Bhojpur, Gaya, Nawada, Patna, Rohtas and Saran.

The reply of the Department is not acceptable as the Geo-coordinates mentioned in the Mining Plans were found incorrect by Audit which was also certified by the NIT, Patna. Moreover, Audit verified that the structures such as high tension tower, bridges and residential areas existed prior to sanction of sand lease.

2.3 Non-obtaining of Environment Clearance of settled sand ghats in extension period of lease

The MGD granted extension of sand lease of 2015 to 2019 up to December 2021⁸ with enhancement of 50 *per cent* of settlement amount of previous year to the sand lease holder of lease period 2015 to 2019. As per the conditions of EC, the validity of EC was five years or expiry of lease whichever is earlier. Further, SEIAA instructed⁹ (January 2020) that EC must be obtained before mining of sand for the extended period of lease *i.e.* October 2020, otherwise it would be against the relevant environment norms as extension of lease, do not extend EC and *vice versa*. Audit observed that the Department had also viewed that EC may be obtained if lease was extended by the Government before expiry of lease (December 2019).

Audit observed that the lessees did not obtain EC from MoEF/SEIAA/DEIAA for mining of sand for the extension period *i.e.* January 2020 to December 2021 or prepared Mining Plan for extension period, while the MGD did not enforce the lessees to take the EC. However, the mining activity was still carried on in all sand ghats of nine districts¹⁰ out of 14 sample districts during this period. Thus, irregular extension of mining lease given by the Department for the period of two years without obtaining EC as well without preparation of Mining Plan from competent authority was in clear violations of the norms prescribing the requirement of EC.

On this being pointed out, the Department stated that the auction of sand ghats was done in 2015, while the EC was accorded between 2016 and 2020. It was further stated that on extension of validity of lease, the EC will also be extended subject to maximum period of five years. Moreover, the MOEFCC clarified (January 2021) that owing to the pandemic, the requirement of EC was exempted in 2020-21.

The reply was not acceptable as the EIA notification, 2006 clearly states that the extension of EC must be taken before extension of lease. Further, the notification of MOEFCC on pandemic was not applicable in this case as the lease was extended before the pandemic.

Recommendation: The MGD should ensure that EC must be obtained before carrying out any mining activity and extension of mining lease for the safeguard of environment as per SEIAA guidelines.

⁸ Two times in year 2020 *i.e.* first up to October 2020 and second up to December 2020 and three times in year 2021 *i.e.* up to March 2021, up to September 2021 and up to December 2021.

⁹ Letter No. 370 dated 06.01.2020 and 372 dated 07.01.2020.

¹⁰ Aurangabad, Banka, Bhojpur, Gaya, Nawada, Patna, Rohtas, Saran and Vaishali.

2.4 Non-auction/settlement of minerals after declaration as minor minerals

Central Government declared Mica, Quartz/Quartzite and Silica sand as minor minerals vide Notification No. SO 423 (E) dated 10 February 2015 of Ministry of Mines under clause (e) of Section 3 of the Mines and Minerals (Development & Regulation) Act, 1957.

Further, as per BMMC (Amendment) Rules, 2014, the settlement of minor minerals shall be auctioned for five years through public auction.

Audit observed that after declaration as minor minerals, Mica, Quartz/Quartzite and Silica sand had to be auctioned as per availability and royalty and rent were to be realised on settlement basis and the process of auction and settlement was to be done as per norms. It is also pertinent that the MGD had already realised revenue from Mica/Silica up to 2016 but no action was taken to auction Mica, Quartz/Quartzite and Silica sand after declaration of these as minor minerals in 2015. This led to loss of revenue to the Department.

The Department stated (May 2022) that three mining leases of Mica in Nawada district were in operation, however, these were cancelled due to non-obtaining of EC and other reasons.

The reply was not acceptable as the mining of Silica, Mica and Quartz/Quartzite was in operation when these minerals were considered as Major mineral. After declaration of these minerals as Minor, these were not auctioned by the Department.

Chapter-3

Assessment and collection of mineral receipts

Chapter-3

Assessment and collection of mineral receipts

Any mineral concession in the form of a mining lease was to be settled by means of public auction-cum-tender only through e-bidding mode and as per the procedure laid in the latest notification issued by the State Government in this regard or as decided by the State Government from time to time, except limestone. Lease of limestone is executed by Indian Bureau of Mines (IBM) as per notification of Ministry of Mines & Geology, GoI. Where a mineral concession is granted under the rules, the formal lease deed shall be executed by the Collector in prescribed form within 180 days of the order sanctioning the lease. If the person to whom such mineral concession has been granted fails to submit the required documents for execution within the aforesaid period, the order sanctioning the lease shall be deemed to have been revoked and in that event, the application fee and the security deposit shall be forfeited. The settlement of stone lease would be for five years and amount would be realised in five equal annual instalments. The instalment amount would be realised in advance before 31 January. The settlement amount of sand *ghat* for next consecutive years would be fixed with enhancement of 20 *per cent* to the previous year's settlement amount as per sand policy. The settlement amount for every year would be realised in following manner:

Table-3

Sl. No.	Instalment	Due date of payment
1	First instalment (50 <i>per cent</i>)	Before issuing of work order for the first year and then after, 15 th December
2	Second instalment (25 <i>per cent</i>)	up to 15 th April
3	Third instalment (25 <i>per cent</i>)	up to 15 th of September

The rules provide levy of simple interest at the rate of 24 *per cent* per annum on the outstanding rent, royalty and fee.

MGD issued a notification on 22 July 2014 for settlement of sand *ghats* for a period of five years (2015-19) through tender-cum-auction basis to eligible highest bidders. Further, for the period of 2020-2024, the MGD invited (August 2019) tender for auction of sand *ghats* of all districts and the process was to be completed before September 2019. But, the leases could not materialised due to incomplete DSRs. As the new tender could not materialise, the MGD extended¹ the sand leases of 2015 to 2019 up to December 2021, with the enhancement of 50 *per cent* settlement amount to the previous year's amount according to the Rule 77 (2) of Bihar Minerals (Concession, Prevention of Illegal Mining, Transportation & Storage) Rules, 2019.

Audit Findings

3.1 Loss of Government revenue due to surrender of sand lease by lessees of sand *ghats* during the period 2015-19: ₹ 18.63 crore

The Bihar Sand Mining Policy, 2013 provides that in cases where the lessee withdraws the lease during the settlement period, the rules provide for cancellation of lease and realisation of full settlement amount, along with forfeiture of security

¹ Notification No. 4948 dated 27.12.2019, Notification No. 2646 dated 14.03.2020, Notification No. 3436 dated 30.12.2020 and Notification No. 986 dated 31.03.2021.

deposit. Further, if the first lessee withdraws from the settlement, the Collector is required to give an opportunity to the second highest bidder for settlement on the same terms and conditions which were applicable for the first bidder, after which, fresh auction for settlement of sand *ghats* was required to be initiated. There is no provision for midway surrender of lease under the above policy.

Audit observed in DMO, Bhagalpur that sand *ghats* were settled at ₹ 4.90 crore to the eligible bidder² for the first calendar year of lease period 2015-2019 with enhancement of 20 *per cent* to the previous year's settlement amount for next consecutive year. The work order was issued on 22 August 2015. As per work order issued, the lessee was required to submit Mining Plan and obtain EC from SEIAA, but the lessee obtained EC only for three sand *ghats*³ out of 12 sand *ghats*. Further, lessee submitted modified Mining Plan of rest nine sand *ghats* but inter-departmental committee rejected the application of modified Mining Plan (October 2017); instructed the District Collector to cancel lease of nine sand *ghats* and to initiate necessary action for resettlement of the same. Accordingly, the same was cancelled (25 October 2017) by the District Collector. Meanwhile, the lessee requested (11 October 2017) to surrender the lease of sand *ghats* under Bihar Minor Mineral Rules, 2017, and requested to release the security deposit of ₹ 1.76 crore due to non-approval of modified Mining Plan by the MGD. On above request, the MGD refunded (February 2019) security deposit of ₹ 1.76 crore despite cancellation of the lease.

Audit further observed that the above case should have been dealt under the provisions of Bihar Sand Policy, 2013 as well as work order. As the Bihar Minor Mineral Rules, 2017, became effective from 10.10.2017 and were further quashed by the Hon'ble Patna High Court (November 2017), due to breach of condition of policy as well as notification by the lessee, the DM/DMO should have taken proper action for forfeiture of security deposit as per rules, after the cancellation of nine sand *ghats*, but neither the DM nor the DMO took any action against lessee and at the same time, did not offer the lease to second highest bidder, thus failing to safeguard the revenues of the State. As a result, the sand *ghats* of Bhagalpur were not made operational between 2018 and 2019, resulting into loss of revenue for ₹ 18.63⁴ crore as well as providing undue favour to the lessee.

On this being pointed out, the DMO stated that the matter was already conveyed to MGD. However, lessee was unwilling to make sand *ghats* operational due to accruing loss and non-compliance of NGT orders. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

² M/s Sainik Food Pvt. Ltd.

³ Two sand *ghats* namely Mahiyama *ghat* of Gerua river and Manikpur *ghat* of Chandan river in June 2016 and one sand *ghat* namely Bathani *ghat* of Gerua river in February 2017.

⁴

(Amount in ₹)			
Year	Settlement amount	Payment	Due amount
2015	4,90,00,000	4,90,00,000	0
2016	5,88,00,000	5,88,00,000	0
2017	7,05,60,000	7,05,60,000	0
2018	8,46,72,000	0	8,46,72,000
2019	10,16,06,400	0	10,16,06,400
Total	36,46,38,400	17,83,60,000	18,62,78,400

3.2 Non/short realisation of actual amount of royalty and other receipts due to incorrect calculation of settlement amount for the extended period of lease: ₹ 17.65 crore

As per orders of the Mines Commissioner, the settlement amount was to be calculated on the basis of number of days keeping in mind of leap years. The settlement amount for the extension period i.e 1 January 2020 to 31 October 2020 was based on 50 *per cent* enhancement on settlement amount of 2019 and calculation was to be based on 366 days. Further, as per the order of MGD, royalty for 43 days of COVID-19 period was to be waived off.

Audit observed in seven DMOs⁵ that leases of sand *ghats* were executed by concerned lessees during extended period with enhancement of 50 *per cent* of lease amount of previous year i.e. 2019, but, these DMOs did not calculate the correct settlement amount, as one day of leap year was not included in settlement amount. Further, it was also observed that the MGD had not developed any mechanism to monitor the calculation of settlement amount by DMOs. Audit further observed that the MGD had provisioned relief of 43 days due to COVID-19 pandemic during 2020. However, DMO, Aurangabad had relaxed 45 days which resulted in undue advantage of ₹ 0.84 crore to the lessee. The district wise details are given in **Table- 4**:

Table-4

(Amount in ₹)

Sl. No.	Name of DMO	Year	Settlement amount for 2019	Settlement amount for 2020 as per rule (366 days)	Actual settlement amount for 2020 after deducting 43 days	Settlement amount fixed by DMO for 323 out of 366 days	Payment made by lessee	Short Payment of royalty	Short payment of DMF (2 per cent of short payment of royalty)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	8(5-7)	(9)	
1.	Rohtas	2020	1,35,87,85,290	20,43,761,984	1,80,36,47,871	1,79,87,19,876	1,65,39,39,365	14,97,08,506	29,94,170	
2.	Aurangabad		1,02,17,07,510	1,53,67,60,063	1,35,62,11,750	1,35,25,06,264	1,35,25,06,254	37,05,496	74,110	
3.	Banka		45,49,06,368	68,42,29,030	60,38,41,466	60,21,91,626	60,21,91,627	16,49,839	32,997	
4.	Nawada		15,88,37,760	23,89,09,398	21,08,40,808	21,02,64,925	21,02,64,930	5,75,878	11,518	
5.	Saran		5,45,16,354	8,19,98,571	7,23,64,859	7,21,67,141	7,21,10,781	2,54,078	5,082	
6.	Gaya		43,54,56,000	65,49,73,545	57,80,23,101	57,64,43,803	57,64,43,803	15,79,298	31,586	
Total									15,74,73,095	31,49,463
	Name of DMO	Year	Settlement amount for 2020 fixed by DMO	Actual settlement amount for 2021 as per rule up to 4/21		Settlement amount fixed by DMO up to 4/21	Payment made by lessee	Short Payment of royalty	Short payment of DMF	
1.	Bhojpur	2021	2,23,08,64,794	1,09,71,46,620		1,09,41,48,960	1,09,41,48,960	29,97,660	59,953	

Further, Audit observed that DMO, Rohtas failed to realise the settlement amount of ₹ 14.48 crore against total settlement amount of ₹ 179.87 crore during extended period of 2020. Moreover, the settlement amount for the extended period of 2020 was also found incorrect by Audit.

Thus, due to incorrect calculation of settlement amount, revenue of ₹16.05 crore in the form of royalty was less realised. Moreover, due to incorrect calculation, District Mineral Foundation (DMF) Fund amounting to ₹ 0.32 crore and Stamp Duty (SD) and Registration Fee (RF) at the rate of 8 *per cent* for ₹ 1.28 crore were also less realised.

⁵ Aurangabad, Banka, Bhojpur, Gaya, Nawada, Rohtas and Saran.

On this being pointed out, the DMOs stated that action would be taken after verification of calculation. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The Department should have a mechanism to monitor the district-wise settlement amount for each year.

3.3 Non-levy of interest on delayed payment on settlement of sand ghats: ₹ 10.22 crore

As per Rule 29 B (4) of Bihar Minerals (Concession, Prevention of Illegal Mining, Transportation & Storage) Rules, 2019, in case of default in payment of any instalment within prescribed date, interest at the rate of 24 *per cent* per annum shall be charged.

Audit observed in eight DMOs⁶ that lessees of sand ghats paid royalty/settlement amount from 2016 to extended period up to September 2021 with delay ranging between one and 225 days. The lessees were required to pay interest on delayed payment at the rate of 24 *per cent* per annum amounting to ₹ 10.22 crore as detailed in **Appendix-1**. Although the fact of delayed deposit of royalty was known to the concerned DMOs, they neither cancelled the lease after default nor levied interest of ₹ 10.22 crore for delayed payments.

On this being pointed out, the DMOs stated that the action would be taken after verification. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.4 Non-realisation of security deposit for the settlement of extended period of sand ghats: ₹ 94.97 crore

The BM (CPTS) Rules, 2019 provides that every lessee of sand shall deposit the amount equivalent to 10 *per cent* of auctioned/tendered amount as security deposit for due observance of the terms and conditions of settlement. The deposit shall be refunded after expiry of the period of settlement/adjusted with the last instalment of the settlement by the Mining Officer. The Special Secretary-cum-Director of MGD has also directed (February 2020) to realise the security deposit from the lessee for the extended period of settlement of sand ghats under intimation to headquarters.

Audit observed in eight DMOs⁷ that as per departmental notification, the lease period of 2015-19 was extended up to 31 October 2020, with the enhancement of 50 *per cent* settlement amount of 2019 and the lessee of sand ghats in these districts had continued their settlement up to October 2020, which was further extended up to 31 December 2021 in phased manner⁸. Security deposit realised for five years (2015-19) was adjusted against the 3rd instalment of settlement amount of 2019. As per conditions of work orders/in-principle approval, lessees of the sand ghats had

⁶ Aurangabad, Banka, Gaya, Kaimur, Nawada, Patna, Saran and Vaishali.

⁷ Aurangabad, Banka, Bhojpur, Nawada, Patna, Rohtas, Saran, and Vaishali.

⁸

1 st extension	Up to October 2020
2 nd extension	Up to December 2020
3 rd extension	Up to March 2021
4 th extension	Up to September 2021
5 th extension	Up to December 2021

to pay fresh security deposit amounting to ₹ 94.97 crore as detailed in **Appendix-2**. However, audit observed that no action was taken to realise the security deposit by these DMOs (December 2021).

Although, there was no provision for surrendering the mining lease in Bihar Sand Mining Policy, 2013, audit observed in five DMOs⁹, that lessees paid due settlement amount up to April 2021 only and surrendered the leases (May 2021) despite having extension up to September 2021. Audit calculated the amount of due instalment, as per work order which was not paid by the lessees as mentioned in **Table-5**.

Table -5

(Amount in ₹)

Sl. No.	Name of district	Period	Settlement amount due
1.	Patna	01.05.2021 to 30.09.2021	80,48,58,604
2.	Bhojpur	01.05.2021 to 30.09.2021	1,39,96,11,355
3.	Rohtas	01.05.2021 to 30.09.2021	1,27,38,61,210
4.	Aurangabad	01.05.2021 to 30.09.2021	95,78,50,800
5.	Saran	01.05.2021 to 30.09.2021	5,14,17,138
Total			4,48,75,99,107

As it is evident from the table above, that the concerned DMOs failed to realise the settlement amount of ₹ 448.76 crore in order to safeguard revenue of the State. This resulted that not only the Government suffered loss of revenue, but also illegal mining activities could not be ruled out. Had the DMOs realised the security deposit for the extended period, the same could have been forfeited in the event of surrender of the leases of sand *ghats*.

On this being pointed out, the DMOs stated that the action would be taken as per rule. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: Security deposit should be realised for extended period of settlement of sand *ghats* as per BM (CPTS) Rules, 2019 for safeguard of Government revenue.

3.5 Non-realisation of Stamp Duty and Registration Fee due to non-execution of registered deed for settled sand *ghats*: ₹ 97.41 crore

As per Rule 29(3) of BM (CPTS) Rules, 2019, the lease deed has to be duly registered by paying proper Stamp Duty (SD) and Registration Fee (RF). Rule 11B (2) of BMMC Rules, 1972, provides that where the settlement is made by public auction-cum-tender, a deed shall be executed in form 'O' or a form as near thereto, as circumstances of each case may require in this rule, within 60 days of the issue of work order of the settlement and if no such deed is executed due to the failure on the part of the lessee, the security deposit and other amount paid may be forfeited. Further, Department while allowing extensions also mandated (December 2019) the registration of agreement for the extended period.

Audit observed that in two DMOs¹⁰, the lessees of sand *ghats* had short deposited ₹ 4.75 crore SD/RF against the applicable SD and RF during the period January 2017 to 2019. Further, the above SD/RF already included in the sale price of the

⁹ Aurangabad, Bhojpur, Patna, Rohtas and Saran.

¹⁰ Kaimur and Rohtas.

sand decided by the Government, therefore, the SD/RF was also being realised by the lessees.

In addition to above, Audit observed that only one DMO, Bhojpur got the deed registered during the extension period. While DMO, Patna, though realised the SD/RF, did not get the deed registered. Further, in DMO, Bhojpur deeds were executed on less settlement amount which was wrongly fixed by DMO during January 2021 to March 2021 and therefore less SD and RF were realised. Seven DMOs¹¹ failed to execute the deeds or deeds were executed at lesser amount resulting into ₹ 92.66 crore less SD/RF being collected from lessees. Therefore, an amount of ₹ 97.41 crore could not be realised in terms of SD and RF as detailed in **Appendix-3**.

On this being pointed out, the DMOs stated that notices had been issued to the lessees for registration of deeds and action would be taken after verification. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The MGD should establish a mechanism for assessment and proper realisation of revenue in time and initiate action at the earliest, in case of any default.

3.6 Loss of Government revenue due to non-revalidation of bank guarantee in place of Stamp Duty and Registration Fee submitted by lessees of sand ghats: ₹ 11.10 crore

Audit observed in two DMOs¹² that sand *ghats* were settled for calendar years 2015 to 2019. The lessees had to pay six *per cent* SD and two *per cent* RF of settlement amount as prescribed by the Government and accordingly registration of agreement deed would be executed.

In above two cases, lessees approached to court for relief of SD/RF and in due compliance of interim order¹³ of Hon'ble High Court (November 2017), Patna, office of the District Sub Registrar (DSR) of these two districts agreed to accept bank guarantee in lieu of deposit of differential amount towards SD and RF for the registration of mining lease agreements with DMO, Banka and Nalanda for settlement of sand *ghat* in the following manner:

1. Total Payable SD at the rate of six *per cent* and RF at the rate of two *per cent* of lease amount.
2. Amount payable at the time of registration of lease, SD at the rate of six *per cent* on five *per cent* of lease agreement and RF at the rate of two *per cent* on five *per cent* of lease agreement.
3. Depositable bank guarantee (1 minus 2).

Accordingly, lessees of sand *ghats* in both districts deposited bank guarantees of ₹ 11.10 crore for SD and RF during 2017 to 2019 with a validity up to 31 December 2019 as detailed in **Appendix-4**. In this regard, Hon'ble High Court passed the final judgment (July 2019) in the favour of MGD, GoB stating that SD/RF was to be levied in the above cases.

¹¹ Aurangabad, Bhojpur, Gaya, Nawada, Patna, Rohtas and Vaishali.

¹² Banka and Nalanda.

¹³ CWJC 7034/2016 Aman Sethi Vs State of Bihar.

Audit observed that all the six bank guarantees had lapsed on 31.12.2019. In this connection, Audit also enquired from both District Registration Offices regarding validity of bank guarantees and they replied that above BGs had not revalidated (December 2021). It was further observed that even the SD deposited by the lessees of the sand *ghats* of these districts was also adjusted with the 3rd instalment of settlement amount for 2019 in both districts. Further, SD for extended period in Banka district was also not realised by the DMO.

Thus, due to lack of co-ordination between Registration Department and MGD, the State Government suffered a loss of ₹ 11.10 crore due to non-revalidation of above BGs where at least ₹ 11.10 crore SD could have been held against the BG by MGD.

On this being pointed out, the DMOs stated that correspondence would be made with District Sub-Registrar. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.7 Non-settlement/non-execution of lease of stone quarries

As per BMMC (Amendment) Rules, 2014, Notification No. 3085/M dated 11.08.2014 and letter No. 3166 dated 20.08.2014 of MGD, the settlement of formal lease of stone mining shall be auctioned for five years through public auction. The lease area shall not be less than five hectares and shall be sanctioned in compact and contiguous block.

It further provides that the formal lease of stone mining is to be executed by the District Collector after submission of required documents and deposit of due instalment of settlement amount by the lessee within 120 days from the in-principle sanction. In case of failure to adhere to the lease conditions, lease is deemed to have been revoked and application and security deposit is required to be forfeited *suo-motu*.

3.7.1 Non-settlement of stone quarries in Nawada

The chronology of events observed by Audit in the settlement of stone quarries (Block No. 10 at Bhadhokhra and Blocks A & B at Khakhndua) in DMO, Nawada is as under:

(a) Block No. 10 at Bhadhokhra

Date	Event
February 2015	In-principle approval accorded in favour of M/s Katyani Construction Private Limited for ₹ 27.51 crore.
May 2015	Mining Plan approved by MGD.
June 2017	EC accorded by SEIAA.
June 2018	Collector issued legal notice to explain the reason for non-execution of lease agreement and non-deposition of first instalment of settlement amount.
July 2018	Lessee appealed before Collector for reduction of auctioned amount and provide approach road, as approach road had vanished due to illegal extraction of huge part of lease hold area.
September 2019	Lease was cancelled by DM and security deposit was forfeited.

Date	Event
September 2019	In-principle approval was accorded to second highest bidder M/s Rajnandani Project Pvt. Ltd. and asked the agency several times for submission of required documents and settlement amount, but the bidder did not turn up.
January 2021	Collector cancelled the lease and forfeited the security deposit.
September 2021	Settlement was not done.

Further, study of satellite images as per Geo-coordinates provided by DMO, Nawada through Google Earth Pro, Audit observed that mining activities as well as movement of vehicles was noticed in Block No. 10 at Bhadhokhra stone quarry when lease period was not settled in September 2018 (**Figures 33 and 34**).



Figure 33: Mining activities in Stone Quarry Block No. 10 at Bhadhokhra.

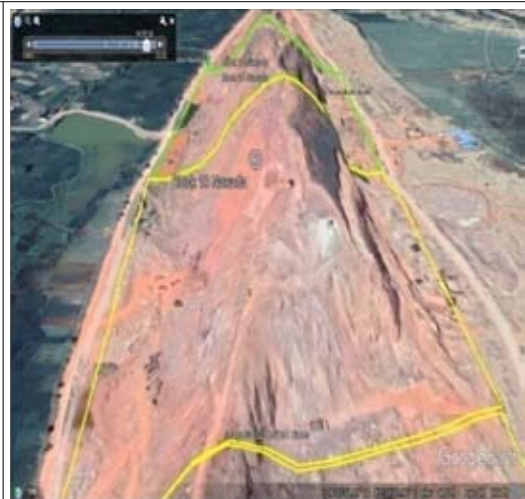


Figure 34: Mining activities in Stone Quarry Block No. 10 at Bhadhokhra.

(b) Blocks A & B at Khakhandua

Date	Event
December 2018	In-principle approval for Block-A was accorded in favour of highest bidder Rajendra Singh, 15, Madar Teresa, North S.K. Puri, Patna for ₹ 1,77,36,68,782 and for Block B tender was in favour of M/s Patel Agro Industries Pvt Ltd. for ₹ 1,58,02,84,880.
January 2019 and June 2019	DMO requested (January 2019) DFO, Nawada for demarcation of boundary of forest area. DMO also requested District Collector, Nawada (June 2019) to direct the DFO, Nawada for the same as these blocks were located nearby forest area.
July 2019	In task force meeting DM directed Assistant Conservator of Forest (ACF) to do necessary action in this regard.
September 2020 to January 2021	MO requested DFO, Nawada to clarify the distance of forest land from Stone Block A & B as per coordinates of said stone blocks. In response DFO, Nawada stated that GPS coordinates made available by mining office does not tally with GPS coordinate taken at two places and mauja Kakhandua is surrounded by forest land from three sides.
February 2021	Revised in-principle approval was accorded for compliance of query of SEIAA. But lessee of Block B raised objection on in-principle approval of Block A.

Date	Event
August 2021	DM instructed DFO, Nawada to submit the report regarding verification of Geo-coordinate provided by Bihar Remote Sensing Application Centre, Patna after spot verification and duly intimate the development chronologically to Director, MGD. Audit observed that no progress in this regard was made (September 2021).

The above points indicate significant delays and substantive failure of the DMO/DM in terms of execution of lease and lack of adequate efforts by DMO for settlement of stone quarry. Further, the GIS images highlight that mining was carried out against which no revenue was realised by the DMO. Thus, the inactions on the part of the officials led to failure to safeguard the revenue of the State.

On this being pointed out, the DMO stated that regular efforts were being made to finalise and start the mining operations in the above blocks. Further, efforts would be made for resettlement of stone blocks. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.7.2 Non-settlement of stone quarry in Kaimur

Audit observed in DMO, Kaimur that five-year lease of stone was granted to M/s BSC-C&C-JV in the area of 20.75 acres, (Mauja-Madurna, PS-Bhabhua) for the period 2009 to 2013. The previous lessee had requested to renew the lease under Rule 22 of BMMC Rules, 1972, but, the MGD refused to grant the renewal of lease of stone and asked the District Collector, Kaimur to execute fresh lease with proper transparent public tender method after survey of the lease area. The chronology of events in the settlement of stone quarry at Madurana Stone Quarry Block (Mauja-Madurna, PS-Bhabhua) is detailed as under:

Date	Event
December 2015	A committee was constituted for fixation of reserve price of stone lease area. The committee recommended that lease of Madurna stone quarry site was to be done as stone in place of stone earth and reserve price was fixed for ₹ 5 crore.
April 2016	District Magistrate, Kaimur invited e-tender for auction of stone quarry.
May 2016	The lease of stone quarry was settled in favour of M/S Starnet Marketing Private Limited for ₹ 5.15 crore.
July 2016	The in-principle approval was accorded.
July 2016	Lessee deposited security deposit of ₹ 0.52 crore.
September 2017	The Mining Plan was approved by the Department after more than one year of in-principle approval.
December 2019	Lessee requested DMO, Kaimur to provide valid Letter of Interest for Madurna stone mine as he had applied for obtaining environment clearance from MoEFCC, Delhi vide proposal no. IA/BR/MIN/109225/2019 dated 27.06.2019 and authority had raised query stating LoI was issued on 26.07.2016 and a time period of 120 days was given to comply with condition of LoI.
September 2021	EC was not obtained by the lessee after lapse of four years of approval of Mining Plan.

Thus, it were clear from the above, that the DMO and the MGD did not initiate any action for non-submission of EC by the lessee after lapse of almost four years of approval of Mining Plan (September 2017) and did not take any action for cancellation of lease and forfeiture of security deposit. This indicates significant delay and substantive failure on the part of DMO in terms of execution of lease and lack of adequate efforts for settlement of stone quarry. This led to loss of revenue to the Government and apart from it, illegal mining activities in the area could not be ruled out.

On this being pointed out, the DMO stated that the work order had not been issued due to non-availability of EC. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.7.3 Non-settlement of stone quarries in Sheikhpura

Audit observed that MGD issued direction¹⁴ (August 2014) to DMO, Sheikhpura to demarcate stone blocks in the district for mining through public auction in which following norms were to be followed:

- (1) Blocks would be compact and contiguous,
- (2) Stone block area would not be less than five hectares,
- (3) Lease of stone block would be for five years,
- (4) After public auction, in-principle approval would be given to the highest bidder.

In light of above, DMO, Shiekhpora prepared (November 2014) a list of 30 stone blocks for public auction. During scrutiny of records, it was transpired that 10 Stone Blocks (9,11,13,14,12,19,20,23,26 and 30) remained unsettled (September 2021). Stone Block No. 9 was not settled due to lackadaisical approach of DMO as it was transpired from Departmental letter (December 2018).

Further, as per Clause No. 9 of tender, District Committee recommended (July 2015) that mining is prohibited within 50 metres of Stone Block No. 11,13, and 14 due to nearby habitants. However, in respect of Stone Block No. 11,13 and 14 department instructed (July 2015) the District Collector that mining lease area of five hectares or more might be settled after leaving a distance of 50 metres from habitation. But, no survey/report was found on record that DMO did the exercise in the light of the instruction of the Department.

Further, again as per recommendation of committee (December 2016) in respect of Stone Block No. 12,19,20,23,26 and 30, it was instructed for Stone Block No. 12,19 and 20 that re-verification of physical status was required by district level committee, but the same was not carried out by the Department in the light of instruction of the committee as no records were found in this regard. For Stone Block No. 23 and 26, the committee recommended to reduce the security amount. Further, committee accepted the proposal of district level committee in respect of Stone Block No. 30 for not auctioning the mining block.

In light of above facts, it is evident that the DMO did not follow instruction of the Department, resultantly, nine out of above stated 10 blocks remained unsettled till date. This indicated significant delays and substantive failure of the DMO/DM/

¹⁴ Letter No. 3166 dated 20.08.2014.

Department in terms of settlement of stone quarry. This led to loss of revenue to the Government and apart from this, illegal mining activities could not be ruled out.

On this being pointed out, the DMO stated that compliance had been made as per directions of the committee in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The Department should develop robust system for survey of stone quarries which will help in timely settlement of such stone quarries.

3.8 Non-realisation of royalty from lessees of stone quarries

As per lease agreement, lessee was required to pay the total settlement amount on yearly basis in equal instalment according to the provision 52 of BMMC Rules, 1972, and 1st instalment was to be paid prior to the execution of lease deed and thereafter, lessee was required to pay re-settlement amount by 31 January every year. As per provision of 52(5) of BMMC Rules, if any instalment is not deposited before prescribed period, simple interest at the rate of 24 *per cent* shall be charged up to two months and thereafter, action for cancellation shall be taken.

3.8.1 Non-realisation of royalty from lessee of stone quarry by DMO, Nawada: ₹ 9.31 crore

Audit observed in DMO, Nawada that stone quarry at Mauja-Bhadhokhra, Block-7 was settled in favour of M/s C&C Construction for ₹ 15.51 crore and in-principle approval was accorded in February 2015. Mining plan was approved by the MGD in May 2015, whereas EC was accorded by SEIAA in June 2017, after lapse of more than two years of in-principle approval. The DM/DMO served several notices for execution of agreement and deposition of settlement amount. But the lessee deposited only 1st instalment of settlement amount of ₹ 3.10 crore up to June 2018 after lapse of one year from obtaining EC from SEIAA. Audit further observed that neither the lessee registered the lease agreement nor deposited 2nd to 4th instalment (September 2021). Further, DM/DMO did not take any action for cancellation of the lease on non-receipt of the settlement amount and resettlement of the same.

Further, study of images of this lease on Google Earth Pro, revealed that mining activities have been carried out in this stone block during different periods. Images of mining activities are given in **Figures 35 to 36**:



Figure 35: Mining activities seen in mauja-Bhadokhara, Block-7 (March 2018).



Figure 36: Mining activities seen in mauja-Bhadokhara, Block-7.

Thus, due to significant delays and failure of departmental authorities to take effective measures or necessary action as per BMMC Rules, a sum of ₹ 9.31 crore up to 4th instalment in the shape of royalty, in addition to interest, could not be realised from the lessee (September 2021) despite mining seen carried out in the area during different periods.

On this being pointed out, the DMO stated that regular efforts are being taken at all levels to execute the agreement. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.8.2 Non-realisation of royalty from lessee of stone quarry by DMO, Gaya: ₹ 15.28 crore

Audit observed in DMO, Gaya that stone quarry of mauja-Gere, Block-1 (area 12.50 acres) was settled¹⁵ for ₹ 37.00 crore and in-principle approval was accorded in February 2015¹⁶. The lessee paid instalment of settlement amount up to 4th instalment on regular basis up to March 2018 against due date of January 2017 and January 2018 of 3rd and 4th instalment after nominal delay. DMO sent (December 2018) a demand for payment of ₹ 7.40 crore against 5th instalment along with interest of ₹ 0.20 crore for delayed payment of 3rd and 4th instalment against which lessee requested (January 2019) for extension of time for paying the last instalment amount for one month without any penalty and further on 20 March 2019 for extension in paying last instalment amount up to 30 June 2019.

As lessees failed to pay last instalment after several demand letters, District Collector, Gaya cancelled (August 2019) the lease after forfeiting security deposit. DMO, Gaya further made a correspondence (November 2019) with lessee for payment of instalment of settlement amount along with interest and finally after lapse of more than one year, a certificate case for ₹ 15.28 crore was instituted (January 2021). But, the amount was not recovered till the date. Thus, it was evident from the above that after cancellation of lease (August 2019), the resettlement process was not initiated. It was seen that no correspondence was made with the MGD in this regard (September 2021) which is causing continuous revenue loss to the State Government.

The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.8.3 Non-realisation of royalty from lessee of stone quarry by DMO, Banka: ₹ 2.81 crore

Audit observed in DMO, Banka that the stone lease (area of 22 acres)¹⁷ was settled for ₹ 3.76 crore and the in-principle approval was accorded on August 2015¹⁸, and agreement was executed (February 2017) after payment of 1st instalment amount of ₹ 75.20 lakh. The DMO sent several demand notices for payment of ₹ 77.33 lakh against 2nd instalment with interest. Accordingly, the lessee paid ₹ 20.00 lakh and submitted affidavit (August 2018) in mining office that the rest amount would be deposited in four instalments along with interest by

¹⁵ M/s IL&FS Engineering & Construction Co. Ltd.

¹⁶ Letter No. 197/mining dated 07.02.2015.

¹⁷ Mauja- Pahari, circle - Sambhuganj, Banka, Plot No. 163 (part), Khata No. 43 Thana No. 41.

¹⁸ M/s Maha Lakshmi Enjicon Pvt. Ltd. vide Letter No.586/M.

December 2018. The MGD directed to take action as per rule¹⁹ and impose simple interest at the rate of 24 *per cent* per annum up to two months and after that call for explanation and initiate action for cancellation. But no action was initiated by DM/DMO, Banka in this regard. The DMO send several demand notices for payment of due instalments during the year 2019 to 2020. But neither the lessee paid due instalment nor the DM/DMO took any action to resettle the stone quarry.

It is clear from the above that due to lackadaisical approach of the DMO, the settlement amount of ₹ 2.81 crore²⁰ up to 5th instalment could not be realised even after lapse of more than four years of settlement/agreement of stone lease.

Thus, due to significant delays and failures of various departmental authorities, the stone block could not be made operational for five years leading to non-realisation of royalty amount of ₹ 2.81 crore calculated on annual instalment.

The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.8.4 Non-realisation of settlement amount and interest from lessees of stone quarries by DMO, Sheikhpura: ₹ 1.09 Crore

Audit observed in DMO, Sheikhpura that an NIT was published for auction of 30 stone quarries during 2015-17, out of which, 20 stone quarries were settled. In-principle approval of all leases were accorded between 2015 and 2017. Even after execution of lease, settlement amount was not paid by lessees in due time and in one case settlement amount was not paid (September 2021). Further, audit observed that lessees of six stone quarries had deposited settlement amount with delay ranging between one and 175 days. The DMO failed to realise interest and didn't take any action for cancellation of lease as per rule. Thus, a sum of ₹ 1.09²¹ crore (as detailed in **Appendix-5**) in the shape of settlement amount with interest was yet to be realised from the lessees (September 2021).

On this being pointed out, the DMO stated that demand notice had been issued and action is being taken for recovery. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.9 Non-submission of final mine closure plan

As per Rule 7(i) of Bihar Mineral Concession (Amendment) Rules, 2014, every mine closure plan shall be of two types, viz. Progressive Mine Closure Plan and Final Mine Closure Plan. The owner, agent or manager of mining lease/settlement shall, in case of grant of the mining lease/settlement, submit Progressive Mine Closure Plan as a component of Mining Plan to the officer authorised by the State Government in this behalf, as the case may be, for approval within a period of one year from the date of grant of such mineral concession. Further, as per Rule 7(iii), the owner, agent or manager of a mining lease/settlement shall submit a final mine closure plan for approval to the officer authorised by the State Government in this behalf, as the case may be, one year prior to the proposed closure of the mine.

Further, as per Rule 8, the owner, agent or manager of a mining lease/ settlement shall have the responsibility to ensure that the protective measure contained in the

¹⁹ Rule 52(5), 21(5)/24(3) of BMMC Rules.

²⁰ Total settlement amount ₹ 3.76 crore – ₹ 95.20 lakh paid by lessee.

²¹ Instalment: ₹ 1,01,50,905 and interest: ₹ 7,71,760.

mine closure plan, referred to in this rule, including reclamation and rehabilitation works have been carried out in accordance with the approved mine closure plan or with such modification as approved by the officer authorised by the State Government in this behalf under this rule.

As per State Level Environment Impact Assessment Authority (SEIAA) specific condition No. 17, a final mine closure plan along with corpus fund duly approved by Competent Authority shall be submitted to the SEIAA, Bihar and to concerned DMO prior to final mine closure for approval.

On scrutiny of Mining Plan and EC certificate issued by SEIAA/DEIAA of 13 DMOs²², Audit observed that a progressive mine closure plan was prepared by concerned lessees for sand mining during 2015 to 2019 and accordingly approved by the MGD. As per Mining Plan, details of various proposals for reclamation and rehabilitation of mined-out land were required to be submitted to the concerned DMOs. But, no documents were found on records regarding implementation of the norms of progressive mine closure plan as final mining closure plan of all sand *ghats* were not submitted by the concerned lessees even after lapse of almost 21 months from end of year 2019 of settlement. In this regard, neither any correspondence was made nor any action had been taken against the lessee. Thus, it was clear that as per the provision of the above rule and condition of SEIAA, no work was undertaken for land restoration/reclamation/rehabilitation. This defeated the intended purpose of the provision/act.

On this being pointed out, the DMO stated that correspondence would be made with lessee for submission of Final Mine Closure Plan and necessary action would be taken in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Limestone

Limestone is the only major mineral available in Rohtas district of Bihar. Total estimated reserves of limestone as on 1 April 2020 were 1,18,09,870.00 MT, out of which 9,99,870.30 MT of limestone was extracted during 2020-21. Balance reserves of limestone as on 31 March 2021 were 1,08,09,999.70 MT.

The mining lease area of limestone at Murli Pahari (Rohtas) was granted under mining lease for a period of 20 years. The lessee filed application (December 2010) for renewal of mining lease as per the provisions of Rule 24 of MCR 1960. The State Government, as per the order of Hon'ble High Court, (April 2017) renewed the mining lease for further 20 years period up to 1 January 2032.

Under Section 24 of the MMDR Act, 1957, the officials of the Mining Department are authorised to carry out inspection of the mining leased area.

3.10 Less extraction of limestone against Mining Plan

As per Progressive Mine Closure Plan of Murli Pahari limestone Mine, targeted production of limestone was 10,00,000 tonne per annum or 3,333 tonne per day on average, peak production on any day was 3,500 tonne, total handling of OB and waste was 32,40,000 tonne per annum or 11,000 tonne per day (TPD). Hence, total handling was 14,500 TPD and proposed working days per annum were 300

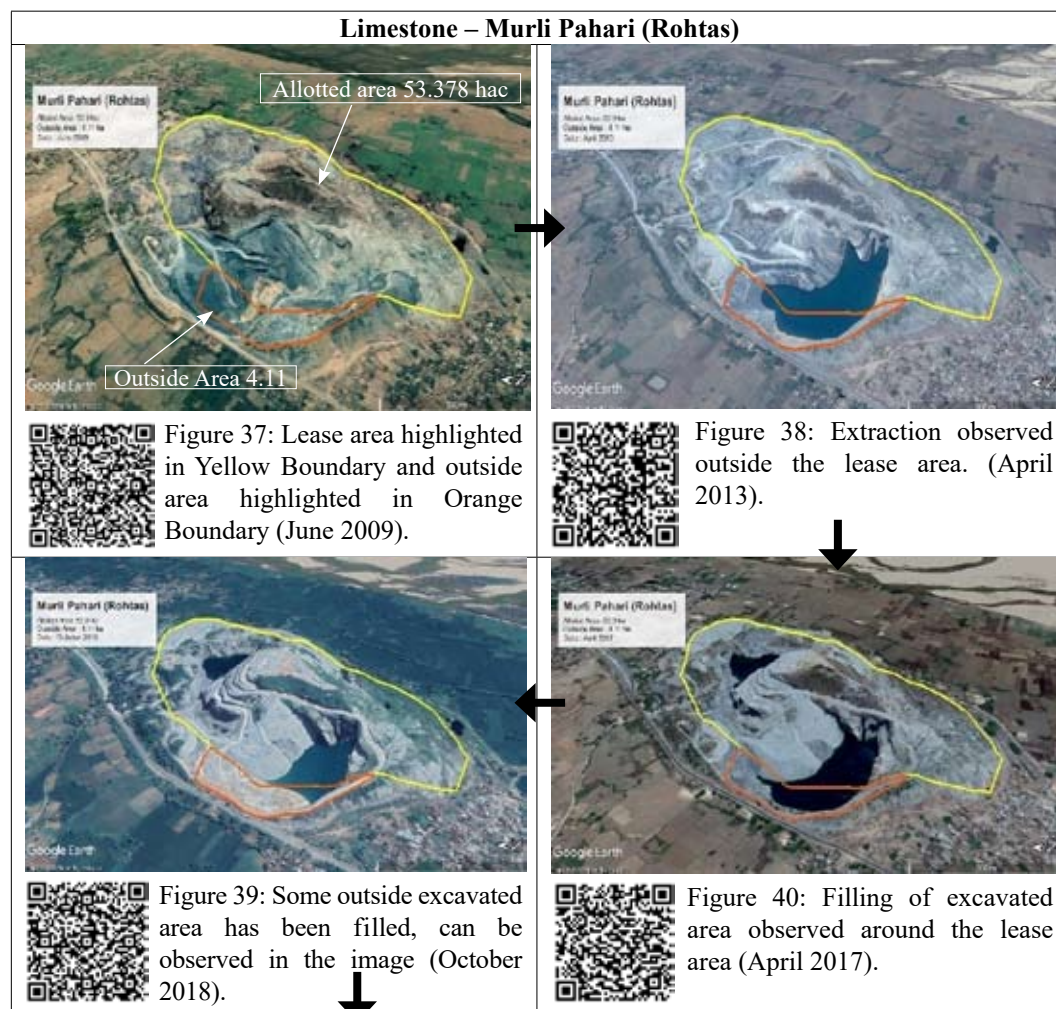
²² Aurangabad, Banka, Bhagalpur, Bhojpur, Gaya, Kaimur, Nalanda, Nawada, Patna, Rohtas, Saran, Siwan and Vaishali.

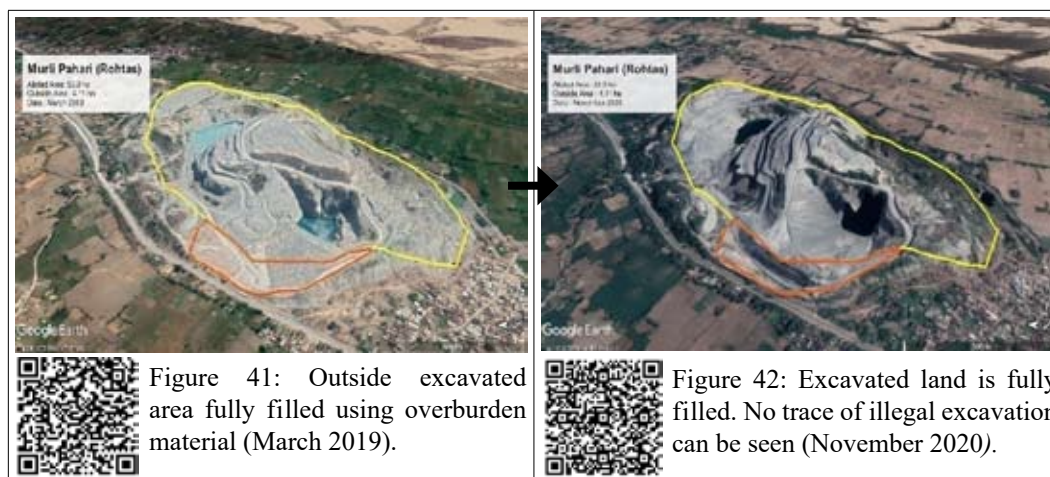
days. Further, royalty would be realised on the basis of actual extraction shown in monthly returns submitted by the lessee.

Audit observed that extraction of limestone was shown as 20,64,591.15 tonne in monthly returns during 36 months (August 2018 to July 2021) and royalty was paid to the tune of ₹ 16,51,67,292 (20,64,591.15 tonne at the rate of ₹ 80 per tonne).

Audit observed that the MGD had not established any mechanism to verify the quantity of minerals extracted by the lessees before despatch to the cement plants/ storage areas. The extracted quantity was being considered only on the basis of what was provided by the lessee. The quantity of limestone extracted as reported in the monthly returns by the lessee was accepted by the MGD. Audit observed that the MGD had not inspected lease area of mining operation during the audit period from April 2017 to July 2021, as there was nothing on records/reports related to inspection of lease area. Thus, in the absence of any monitoring mechanism, the MGD could not verify the correctness of extraction of mineral in allotted area and the monthly returns submitted by the lessee. The same could not be verified during audit also as no corroboratory documents were available.

Further, study of satellite images on Google Earth Pro related to Geo-coordinates of Murli Pahari (area 53.378 hectare) given in Mining Plan showed that mining activities were carried out in the outside area (4.11 hectare) during the year 2009 to 2013 and the area was filled up by reject/overburden material of allotted area in 2018 to 2019. This is supported by the historical Satellite images as given in **Figures 37 to 42:**





As the average capacity for extraction of mineral was 29.99 lakh tonne as per approved Mining Plan during the period of 36 months, against which, the lessee had shown to have extracted less mineral (31 *per cent*) vis-à-vis during the above mentioned period. Had the extraction been made as per their capacity mentioned in the Mining Plan, the Department would have received royalty of ₹ 23.99 crore (29.99 lakh tonne at the rate of ₹ 80 per tonne). Hence, the Department was deprived from the royalty of ₹ 7.48 crore (₹ 23.99 crore– ₹ 16.51 crore) during the period of 36 months.

On this being pointed out, the DMO stated that notice would be issued. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The Department should develop mechanism for verification of quantity of minerals extracted before despatch and ensure adequate inspection/verification of limestone lease area by the Mining Office. Further, MGD should also carry out a Geo-spatial study to ascertain the actual extraction of limestone over the years.

3.11 Non-auction of reject/overburden material

Audit observed that Murli Pahari Limestone mining lease, operated to meet the requirement of limestone for producing cement in its plant at Banjari, had a high proportion of “Overburden/Reject” material which could not be used in cement production. The ratio of limestone to overburden/reject in Murli Pahari lease was generally 4:1 and therefore quantity of such “Overburden/Reject” was very large. Since this material did not have any alternate use in cement production, the same could be utilised for road construction projects and other construction purposes. Further, as per report of Mines Inspector, a huge quantity of 16,83,650 cubic metre of reject was available at limestone area. The lessee had submitted (January 2019) an application for auction of overburden/reject material, but action had not been initiated in this regard till date. If auction process had been taken for sale of overburden/reject material by the MGD, the MGD would have generated substantial revenue in the terms of royalty.

On this being pointed out, the DMO stated that action would be taken in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.12 Plantation in limestone area

As per General conditions (VII) of EC, regarding Murli Pahari Limestone Mine of M/s Kalyanpur Cements Ltd, of MoEFCC, Impact Assessment Division, New Delhi, plantation shall be raised in a 7.5 metre wide greenbelt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads *etc.* by planting the native species in consultation with the local DFO/ Agriculture Department. The density of the trees should be around 2,500 plants per hectare. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.

Audit observed that limestone area was in 53.378 hectare and as such 1,33,445 plants were to be raised in the lease area. As per report of DFO, Rohtas, only 5,000 plants were procured by the lessee. Hence, plantation was not done in the mining area of limestone as per norms. Further, it was also observed that report/returns and compliance of guidelines/ instructions mentioned in the Mining plan, EC, CPCB/ SPCB were not found in concerned records.

On this being pointed out, the DMO stated that correspondence would be made. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.13 Operation of brick kilns

The MoEF vide OM dated 24 June 2013 had categorised mining of brick earth into B-2 category²³ wherein obtaining EC from SEIAA is mandatory.

As per Rule 4 of BMMC Rules, 1972, “No person shall undertake any mining operation in any area without valid permit”. Rule 28 (1) states that an application for quarrying permit shall be submitted to the competent authority in form-I. Further, whoever is found to be extracting or removing minor minerals shall be presumed to be the illegal remover of the minor mineral and every such person shall be punished. Further, as per schedule of EIA notification²⁴, 2006 issued by MoEF, GoI, EC is required and essential for brick earth mining for manufacturing bricks. Every brick kiln owner has to obtain Consent to Establish (CTE) and Consent to Operate (CTO) for mining project under Section 21 of the Air (prevention and control of pollution) Act, 1981 (14 of 1981).

As per Rule 26 (A) of the BMMC Rules, 1972 read with notification (January 2012) and Rule 38(4) of BM (CPTS) Rules, 2019 of the Mining Department, every brick kiln owner must obtain a permit and is required to pay the consolidated amount of royalty at prescribed rates²⁵. If the brick kiln owner fails to make payment of the consolidated amount of royalty in the manner so prescribed, he shall not be allowed to carry on the operations.

²³ The activities of excavation of ‘brick earth’ and ‘ordinary earth’ up to an area less than five hectares have been categorised under B-2 category on the basis of spatial extent of potential impacts and potential impacts on human health.

²⁴ OM No. J-11013/56/2004-1A. II (I) dated 14/09/2006.

²⁵ ₹ 1,32,500 for category-I, ₹ 1,03,500 for category-II and ₹ 74,500 for category-III brick kilns before September 2019 and thereafter, ₹ 2,02,500 for category-I, ₹ 1,57,500 for category-II and ₹ 1,12,500 for category-III.

3.13.1 Illegal removal of brick earth without valid permit and without submission of CTE/CTO and Environment Clearance Certificate

Audit observed in 13 DMOs²⁶ for the years 2017-18 to 2020-21 that 9,490 (92 per cent) out of 10,269 brick kilns were being operated without valid permit and EC. Only 779 (eight per cent) brick kilns were being operated with valid permit and ECs. It was further observed that total 4,121 (40 per cent) brick kilns were being operated without submission of EC from SEIAA/DEIAA and 5,424 (53 per cent) brick kilns were being operated without submission of CTE/CTO from Bihar State Pollution Control Board (BSPCB), as detailed in **Appendix-6**. Further, DMO, Gaya did not provide any records related to CTE/CTO and EC of 1,806 brick kilns, hence, Audit could not analyse the same.

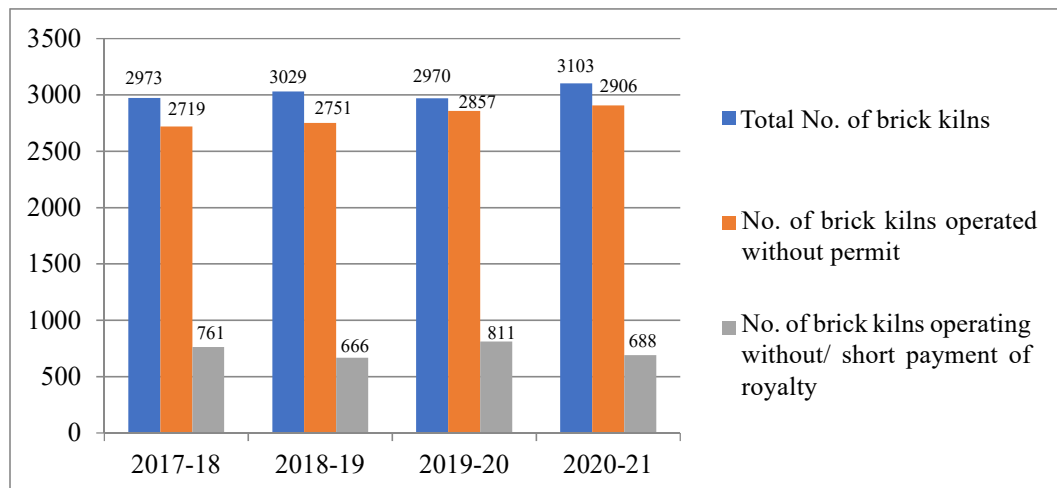
The excavation of brick earth without EC and CTE/CTO was not only illegal but could also affect the environment adversely. However, the DMOs did not take any appropriate action for stopping illegal operations of brick kilns as per rules.

On this being pointed out, the DMOs stated that notices had been issued to those brick kiln owners who had not obtained CTO and correspondence would be made to SPCB for necessary action in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.13.2 Non/short realisation of royalty and penalty from brick kiln owners: ₹ 61.08 crore

Audit observed in 14 sampled DMOs that total 11,233 brick kilns were being operated without valid permit as well as without paying royalty as highlighted in **Chart-5**:

Chart: 5
Details of operation of brick kilns



(Source: Details provided by sampled DMOs)

Audit observed from the details of inspection reports of brick kilns that even the permit issuing authorities were realising royalty from the operations of the brick kilns without permit. However, neither they initiated any action to stop the operations nor made any efforts to realise the due royalty, application fee

²⁶ Aurangabad, Banka, Bhagalpur, Bhojpur, Kaimur, Nalanda, Nawada, Patna, Rohtas, Saran, Siwan, Sheikhpura and Vaishali.

and penalty of ₹ 61.08 crore for operation of brick kilns without valid permit as detailed in **Appendix-7**. The inaction on the part of DMOs not only resulted into non-realisation of royalty and penalty of ₹ 61.08 crore²⁷ from 2,926 illegally operative brick kilns but also their collusion with illegal brick kiln owners could not be ruled out.

On this being pointed out, the DMOs stated that necessary action would be taken after verification. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

3.13.3 Non-realisation of Professional Tax from brick kiln owners: ₹ 2.07 crore

Audit observed in 14 sampled DMOs that Professional Tax was not deposited by 8,277 (69 *per cent*) out of total 12,075 operative brick kilns during 2017-18 to 2020-21. This had resulted in non-realisation of Professional Tax for ₹ 2.07 crore due from brick kiln owners as detailed in **Table - 6**:

Table-6
Non-realisation of Professional Tax

(Amount in ₹)

Brick Season	No. of brick kilns	No. of permits issued	No. of brick kilns did not paid professional tax	Professional tax paid	Professional tax due (at the rate of ₹ 2,500 per brick kilns)
2017-18	2,973	254	2,381	0	59,52,500
2018-19	3,029	278	2,325	0	58,12,500
2019-20	2,970	113	1,916	0	47,90,000
2020-21	3,103	197	1,655	0	41,37,500
Total	12,075	842	8,277	0	2,06,92,500

On this being pointed out, the DMOs stated that brick kiln owners would be encouraged to deposit Professional Tax. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

²⁷ Royalty: ₹ 44,43,69,855 and Penalty: ₹ 16,64,51,150.

Chapter-4

Illegal Mining

Chapter-4

Illegal Mining

As per Rule No. 4 of BMMC Rules, 1972, “No person shall undertake any mining operation in any area without valid permit.” Further, as per Rule 28 (1) of BMMC Rules, 1972, an application for quarrying permit shall be submitted to the competent authority in form-I. Further, whoever is found to be extracting or removing minor minerals without valid permit shall be presumed to be the illegal remover of the minor minerals and every such person shall be punished.

As per Rule 11 (I) of BM (CPTS) Rules, 2019, no person shall undertake any mining operation in any area, except under and in accordance with the terms and conditions of a quarrying permit or, as the case may be, a mining lease, granted under these rules; provided that nothing in this sub-rule shall affect any mining or quarrying operations, undertaken in any area, in accordance with the terms and conditions of a mining lease or quarrying permit, granted before the commencement of these rules, which is in force at the time of such commencement. No quarrying permit or mining lease shall be granted otherwise than in accordance with the provisions of these rules. The Mining Plan approved by the MGD serves as the area demarcated for carrying out any mining activity. The deficiencies in the Mining Plans has already been highlighted in **Chapter-2** and impact of the same has been discussed in that chapter. Further, the MGD implemented e-challans as quarrying permits under the extant rules and to act as system for prevention of illegal mining in the state. However, various deficiencies, observed in usage of e-challans have been highlighted in this chapter.

Audit Findings

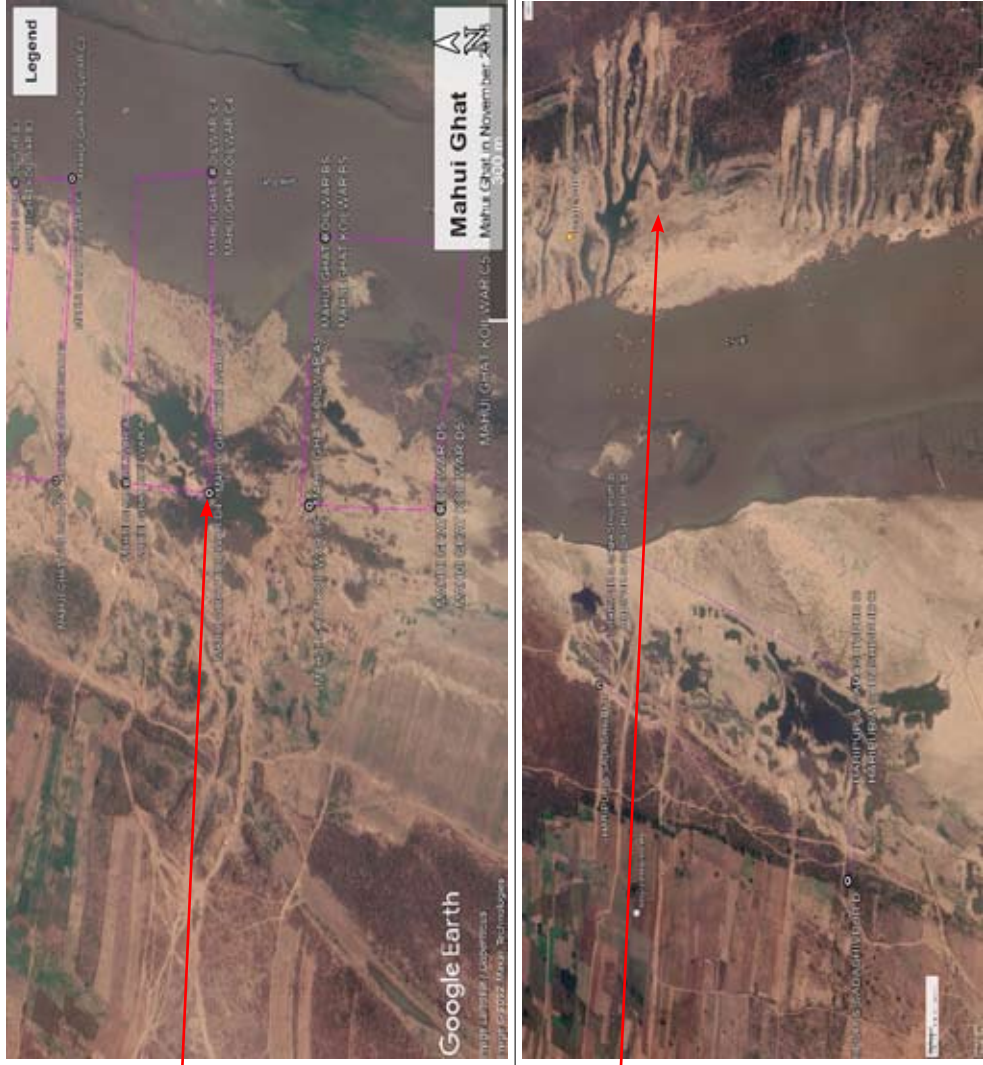
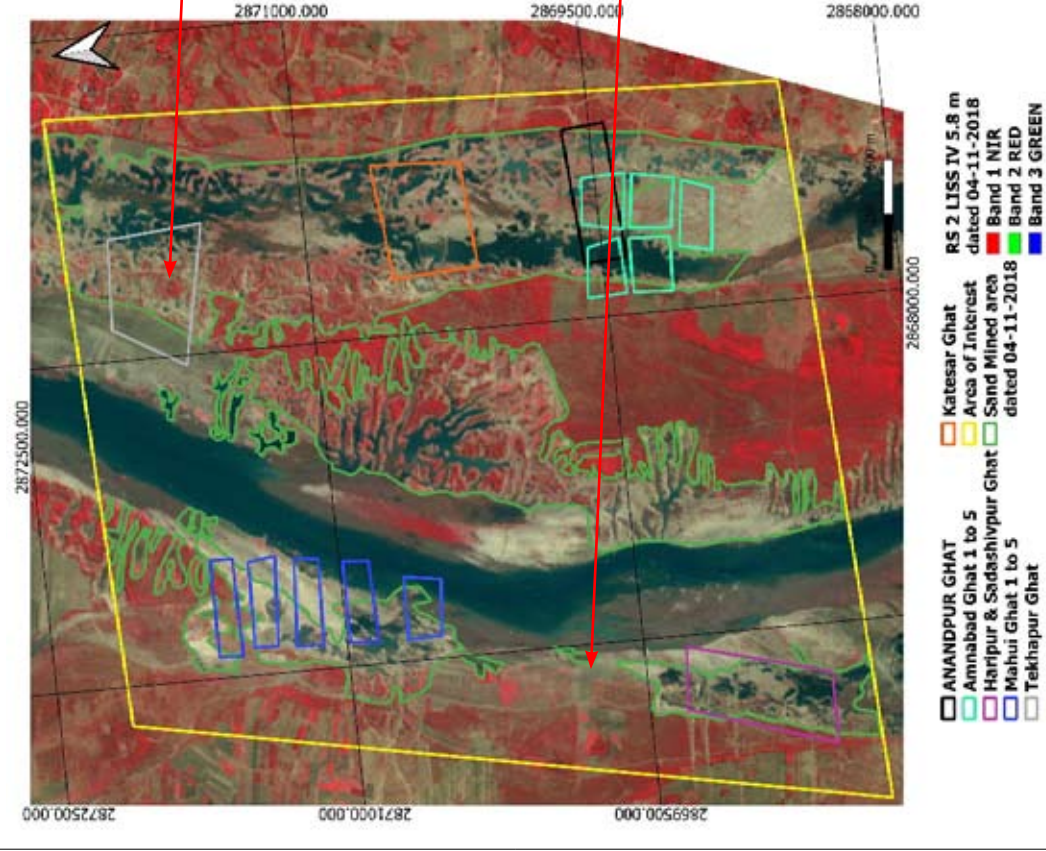
4.1 Comparison of actual and approved mining *ghats*

As defined in the methodology, three Areas of interest covering 17 sand *ghats*, were developed for GIS study. For the above study, LISS-IV images were used to analyse the actual mining area in the areas of interest. The said study was carried out for the period of two years where data for six different months were taken for the study.

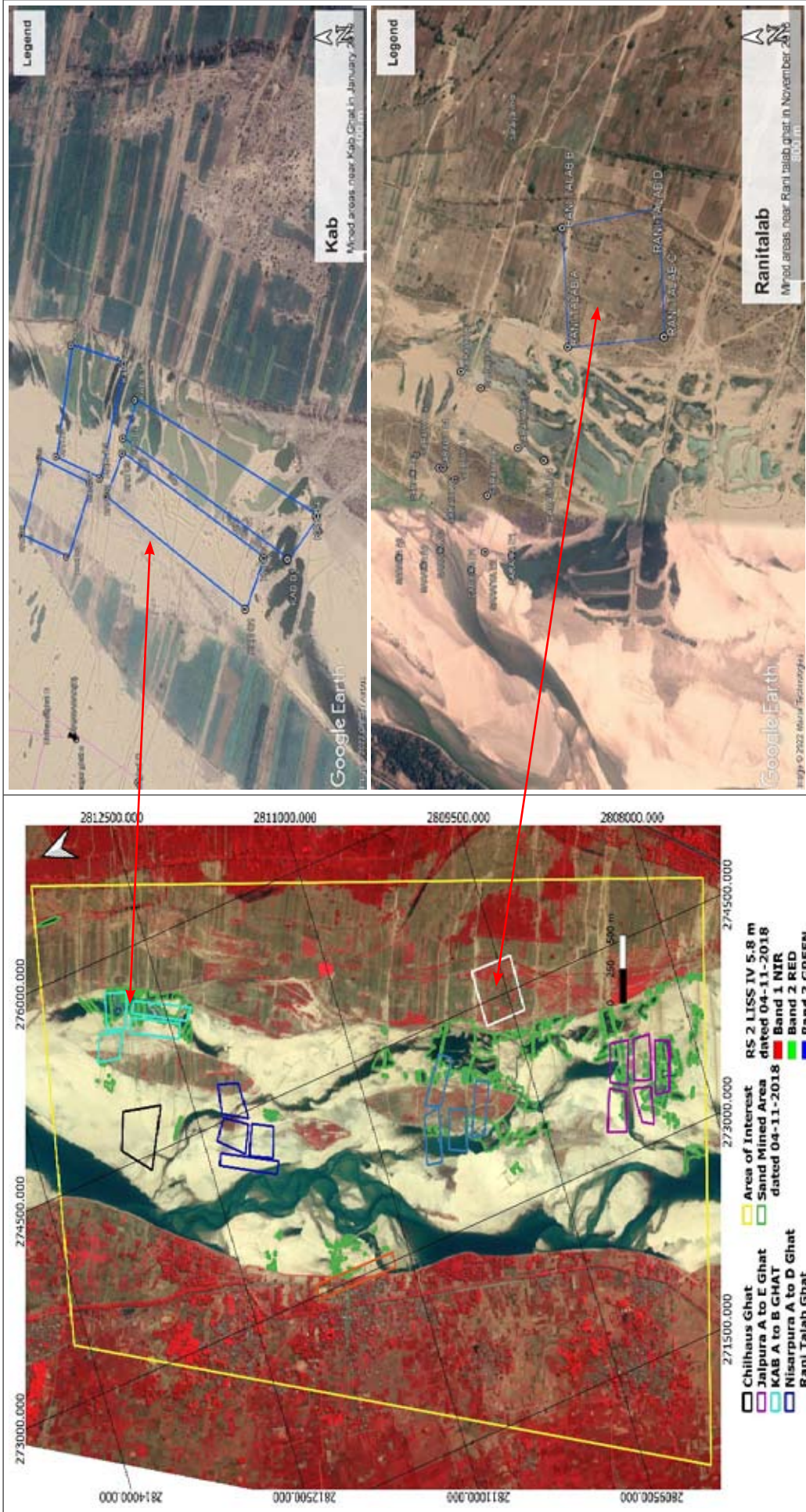
The expert agency used ENVI and QGIS software for the analysis of GIS images. Supervised classification was carried out by NIT, Patna to differentiate between different land-use classes. For identification of mining locations, computer based classification was not found suitable by the expert agency and instead manual method/ visual interpretation technique was considered. This was based on the proof available in the processed satellite images, which would show road access, human intervention and man-made shapes with water logging *etc.* The image elements like tone, texture, shape, size, pattern and association *etc.* were also considered by the expert agency for the identification process.

As per report of the expert agency, generally river sand appears in the tones of bright white to dull white (yellow) with medium to fine texture due to the presence of Silica minerals. Also, the sand mined areas could easily be identifiable with their irregular shapes, uneven tone and rugged surface. The report of expert agency

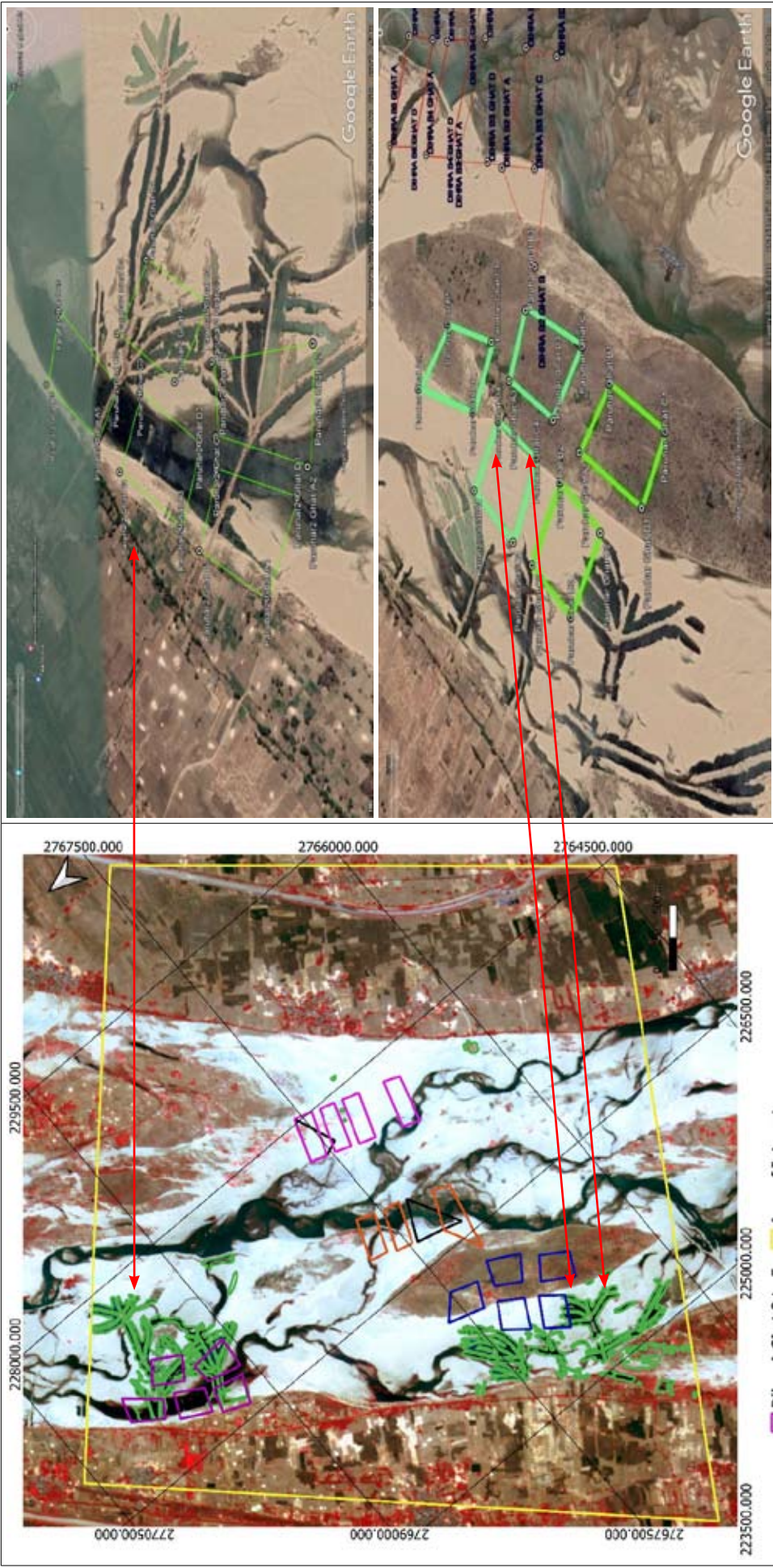
highlights that the sand excavation pits appear in dark to grey tone, coarse texture with uneven topography depending on the depth and moisture content in the area. Supplementary images were verified with the aid of Google Earth historical imagery tool to cross-check the sand mine areas by the expert agency. The GIS images of November 2018 for the three different areas of interest is highlighted in the **Table-7** below;



Google Earth images of November 2018 for two ghats in Area of Interest-I showing mined areas as well as movement of vehicles.



Google Earth images of November 2018 for two *ghats* in Area of Interest-II showing mined areas.



Google Earth images of May 2019 for two *ghats* in Area of Interest-III (image June 2019) showing similar shape of mined areas.

The above images highlight the mining being carried out outside of the approved mined areas. The trend continued in both the years for the selected months for all the areas of interest as shown in **Appendix-8**. The images show that the actual mining is being carried out outside all the sand *ghats* covering in the areas of interest as highlighted in the green colour boundary. The same was corroborated by Audit by checking the Google Earth images of the area in similar time frame as shown in pictures above. Further, as highlighted in **Chapter-2** relating to systemic deficiencies in approval of these Mining Plans, the coordinates have been approved without field verifications, which is also highlighted by the images of mining being carried out outside of such areas. The expert agency has also highlighted the inconsistencies in coordinates of the Mining Plan. Further, following can be observed from the images:

- Rani Talab *ghat*: The Mining Plan coordinates are coming in vegetation area while images show the mining being carried completely outside the area approved for Mining Plan.
- The Paruhar *ghat* has been approved amidst the river channel as shown in images above and mining can be seen completely outside the approved area near to the river bank.

Further, Audit also analysed the available Google Earth images of 86 sand *ghats* in three districts selected for GIS study on a sample basis. In order to identify mining activity outside of approved sand mining area, time series imageries for the years 2014, 2015 and 2018 of Google Earth Pro were used. The interpretation was done to capture the movement of trucks/trolleys in the river bed zone of approved sand mining areas allotted for a particular sand *ghat* on Sone river for sand extraction as per Geo-coordinates in Mining Plan and EC. After plotting Geo-coordinates of sand *ghats* of above three districts on Google Earth Pro, it was noticed that mining activities were being carried out in the area outside allotted area as seen in satellite images below:

(a) Patna

As per available historic satellite images of sand *ghats* of Sone river in Patna district on Google Earth Pro, the outside extractions were seen in 20 out of 24 sand *ghats*. Images of some of the *ghats* have been highlighted in **Figures 43 to 47**:



Figure 43: Outside extraction shown in March 2020 at Udaipur sand *ghat*.



Figure 44: Outside extraction shown in February 2020 at Annabod sand *ghat*.



Figure 45: Outside extraction as well as movement of vehicles shown in March 2020 at Janpara sand ghat.



Figure 46: Outside extraction shown in March 2020 at Jalpura sand ghat.



Figure 47: Outside extraction shown in January 2019 at Nisarpura sand ghat.

(b) Bhojpur

As per available historic satellite images of sand *ghats* of Sone river in Bhojpur district on Google Earth Pro, the outside extractions were seen in 28 out of 36 Sone sand *ghats*. Images of some of the *ghats* have been highlighted in **Figures 48 to 55**:



Figure 48: Outside extraction shown in February 2020 at Mahui sand ghat.



Figure 49: Outside extraction shown in April 2018 at Kharonkalan sand ghat.



Figure 50: Outside extraction shown in February 2019 at Koilwar Chhitampur sand *ghat*.



Figure 51: Outside extraction shown in January 2019 at Karbasin sand *ghat*.



Figure 52: Outside extraction shown in March 2020 at Sarimpur Bachri sand *ghat*.



Figure 53: Outside extraction shown in March 2020 at Kirkiri sand *ghat*.



Figure 54: Outside extraction shown in March 2020 at Baruhi sand *ghat*.

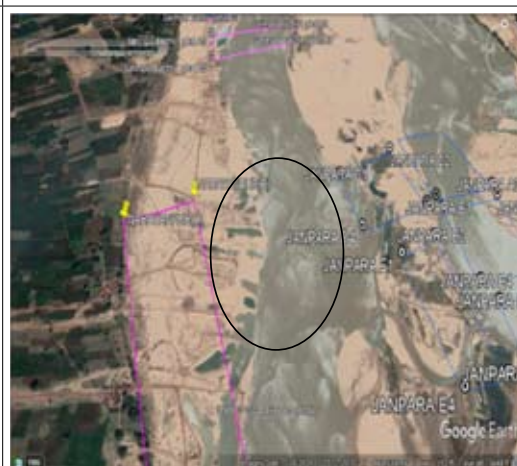


Figure 55: Outside extraction shown in March 2020 at Narayanpur sand *ghat*.

(c) Rohtas

As per available historic satellite images of sand *ghats* of Sone river in Rohtas district on Google Earth Pro, the outside extractions were seen in 16 out of 26 Sone sand *ghats*. Images of some of the *ghats* have been highlighted in **Figures 56 to 61**:



Figure 56: Outside extraction shown in November 2018 at Paruhar sand ghat.



Figure 57: Outside extraction shown in May 2019 at Paruhar 2 sand ghat.



Figure 58: Outside extraction shown in June 2018 at Chaknaha sand ghat.



Figure 59: Outside extraction shown in May 2019 at Majhiao sand ghat.



Figure 60: Outside extraction shown in May 2019 at Darihat 1 & 2 sand ghat.



Figure 61: Outside extraction shown in May 2019 at Darihat 3 sand ghat.

Apart from above, sand mining activities were observed outside, approved lease areas in 17 sand *ghats*¹ of Chandan river in Banka district (as detailed in **Appendix-9**).

Thus, from the GIS study as well as Google Earth satellite images the persistent prevalence of the mined areas outside the approved areas had been noticed in

¹ Baisa, Bisunpur, Domuhan, Godiya, Govindpur, Jitapur, Jogi Pahari, Kunani, Lakhnauri-1, Lakhnauri-2, Manjhira, Majhiyara Arazi, Majhoni, Patwe & Bhorwa, Patwe Bhorwa & Majhiyara Arazi, Rajipur Kakna and Saran Godiya.

all the three test checked districts *ghats* throughout the audit period. Owing to systemic deficiencies in the approval of these coordinates as well without proper demarcations, the illegal mining can be seen as rampant feature throughout the test checked districts. Most of the control mechanisms required to be employed by the Department as per SSMMG to check illegal mining were found non-existent as highlighted in this paragraph, which has further impacted the expanse of illegal mining.

The matter was reported to the Department (April 2022); their reply was awaited (23 May 2022).

4.2 Actual mining area in the sampled *ghats*

The LISS-IV images procured from NRSC, Hyderabad were used for finding the mining areas by the expert agency. The sand mining area was digitised within the boundary of AOI-I, II and III. The approximate surface area of sand mining for 17 approved *ghats* was calculated for the time periods November 2018, February 2019, June 2019, November 2019, January 2020 and March 2020. The actual area mined inside the approved boundary for the selected *ghats* and selected time periods is detailed in **Appendix-10**.

The total surface area mined in all AOI have been calculated and presented in **Charts-6 to 8**. The area of mining outside the approved boundary and inside the AOI boundary is considered as illegal sand mining area. It is important to note that all the calculations have been carried out with the same area for all AOI. All the area calculations presented here are purely based on the analysis of satellite images (LISS-IV) provided by the expert agency *i.e.* NIT, Patna has also highlighted in their report that there may be differences in computation of the area owing to supervised learning, hence areas calculated has been marked as approximate area in the **Appendix-11**. Further, the illegal sand mined areas, actual area mined within the approved *ghats* and the total surface area mining in the AOI-I, II and III are plotted in **Appendix-8**.

Chart-6

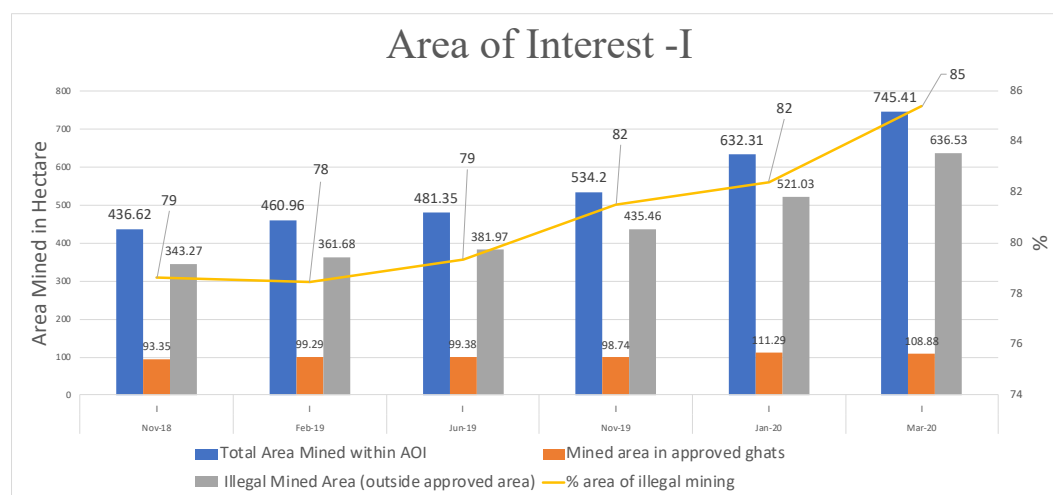


Chart-7

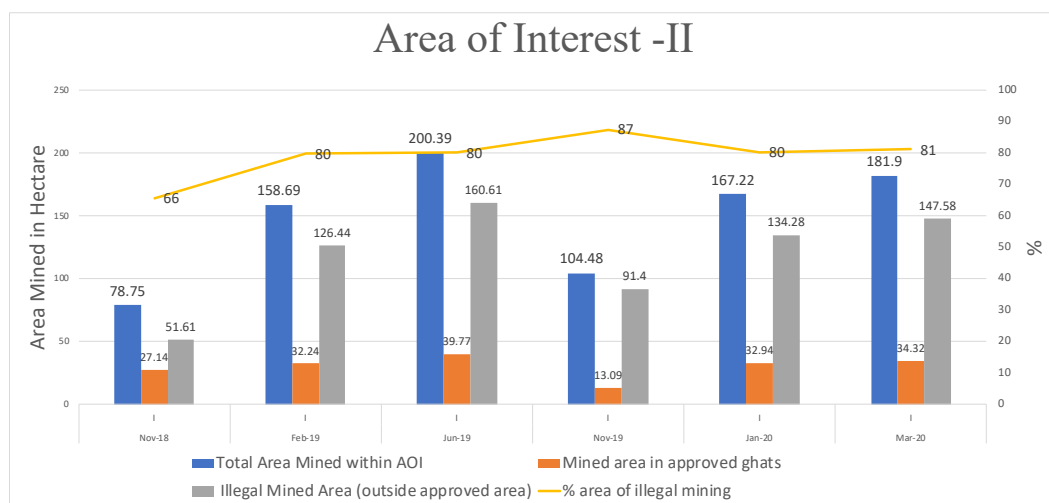
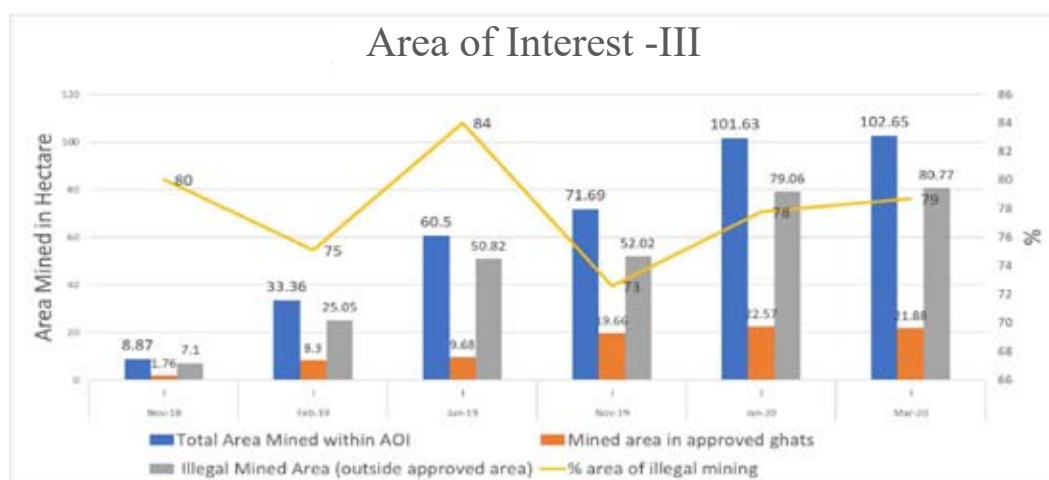


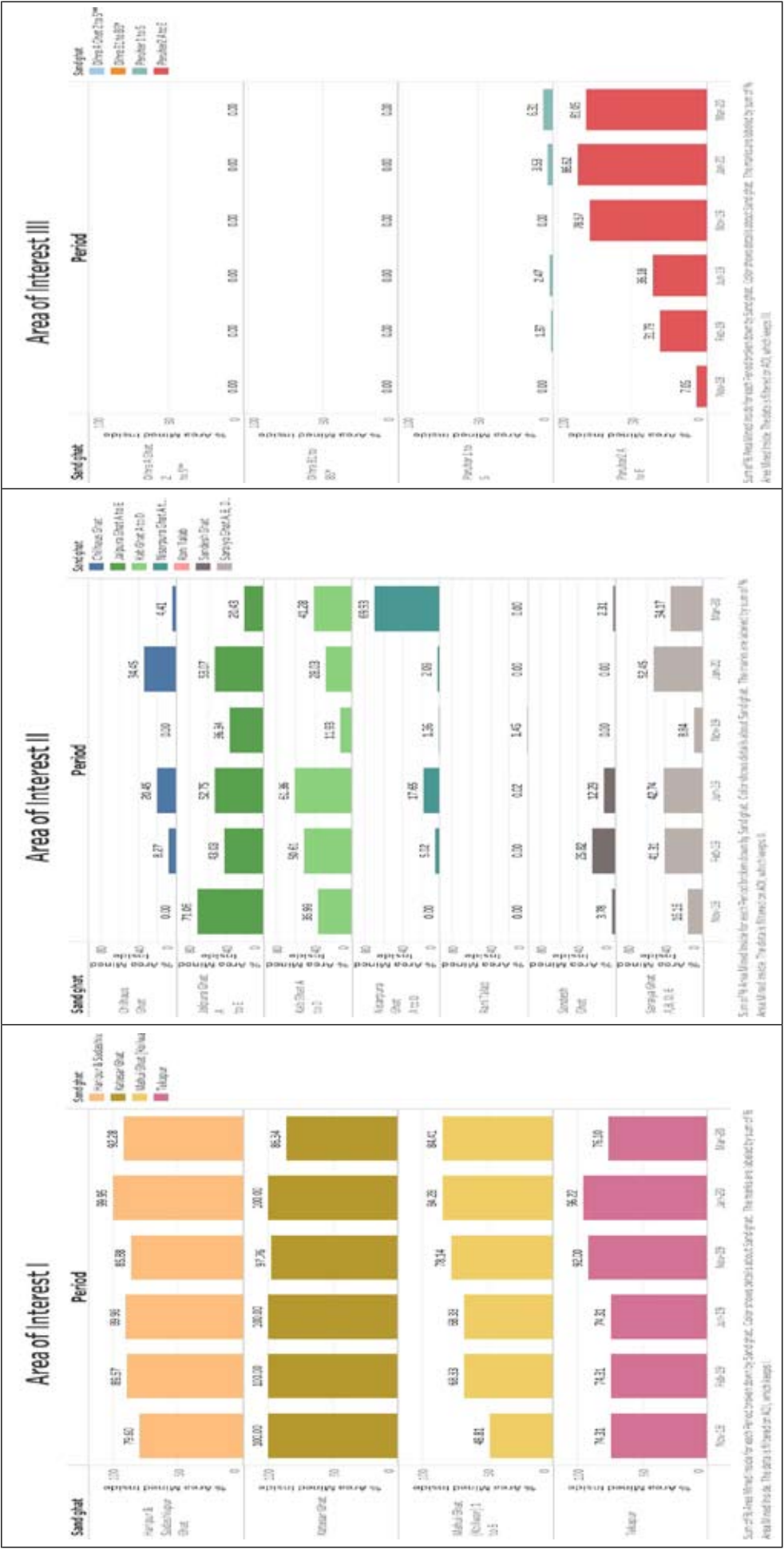
Chart-8



It is interesting to note that the area of overall mining increased from November 2018 to June 2019 and this cycle repeated for November 2019 to March 2020 for all AOI. Overall results show that the surface area mining increased from November 2018 to March 2020. It was also observed that the rate of increase was more in AOI-I, as compared to AOI-II and III. Expert agency in its report also stated that this may be due to the proximity of sand *ghats* in AOI-I to the State capital Patna. Further, looking at illegal mining data, the average illegal mining areas for AOI-I, II and III are 81 *per cent*, 79 *per cent* and 78 *per cent* respectively. This highlights that most of the illegal mining was being carried out outside the approved area. Thus, it is evident from the above results using satellite images that in all the selected AOI, considerable illegal mining was being carried out during the periods mentioned. It was noticed that with the AOI size, the illegal mining was increasing with the years.

The **Chart-9** below shows the percentage of area mined inside the approved *ghats* during different periods.

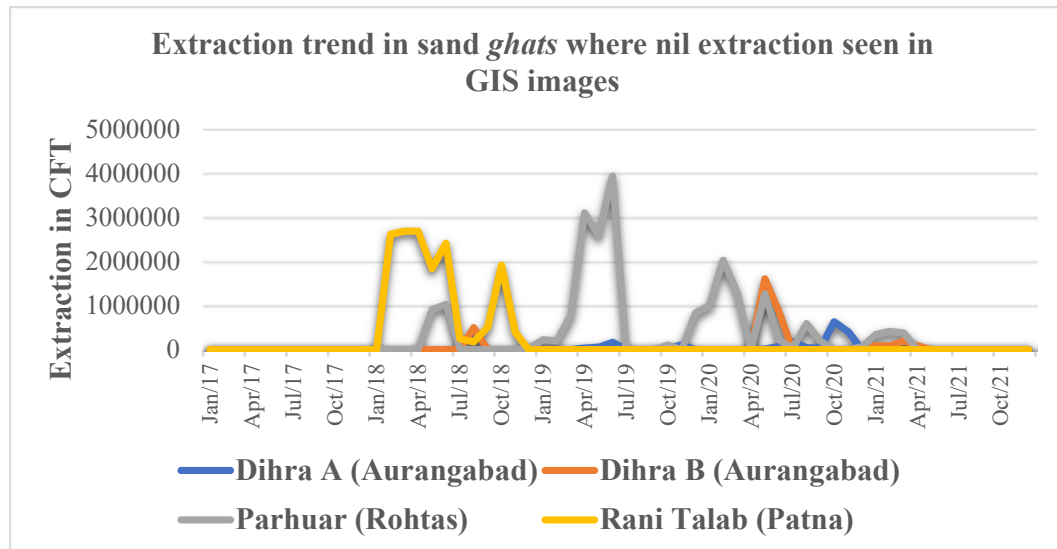
Chart-9



The above charts highlight the area mined inside the approved area in the *ghats* covered in three different AOI. Two sand *ghats* (Amnabad and Anandpur) in AOI-I have been intentionally left out of the analysis as the coordinates of the two *ghats* are overlapping and actual area mined inside each *ghat* could not be calculated. From the above data, following was observed by the Audit:

- In AOI-I, mostly all the *ghats* were shown mined almost 80 *per cent* to 90 *per cent* in the specified period and when correlated with total mining inside AOI-I, it could be observed from the chart that illegal mining outside the approved area had been persistently increasing.
- Further, four *ghats*² are seen to have no mining activity in the approved area in any of the specified period. However, on verification of the despatch data of these *ghats* by Audit, it was found (2018-2021) that 16.97 lakh tonne of sand were shown despatched from these *ghats*. **Chart-10** below shows the trend of despatch reported by the lessee from these *ghats* from January 2017 to October 2021. It can be observed from the chart below that majority of despatches have been shown between 2018 and 2020. This also highlights that mining was carried out outside the approved area. Only one sand *ghat* Dhira A (Aurangabad) has reported nil despatch (January 2017 to March 2019) which can also be correlated from GIS images.

Chart-10



Further, Audit analysed the penal provisions for excess extractions by the lessee themselves and found that as per condition 3 (vii) of Bihar Sand Mining Policy, 2013, the lessee had to pay only extra royalty in case the quantity of sand extracted in a particular year is in excess to that of prescribed quantity of the settlement amount of that year, whereas, the penalty for transportation of illegal mined minerals was found to be 25 times royalty and fines amounting to ₹ 25,000 to ₹ 4,00,000, along with imprisonment clause. However, for illegal mining (beyond the approved Mining Plan area) by lessees, there was no penal clause in the Sand Policy. Audit also analysed penal provisions of the Sand Policy of Madhya Pradesh and found that penalty for excess/illegal extractions by lessee was cost of mineral, which

² Dhira A, Dhira B, Paruhar and Rani Talab.

is much higher than the royalty amount. Therefore, Audit is of the opinion that absence of suitable penalty clause for illegal mining by the lessees is an important factor contributing towards illegal mining as observed from the increasing trends of illegal mining from GIS study.

The matter was reported to the Department (April 2022); their reply was awaited (23 May 2022).

Recommendation: The Department should carry out Geo-spatial study of the sand *ghats* from time to time, to ensure that mining is being carrying out as per the approved plans and any deviation from the same could be reported and suitable action may be taken against illegal miners.

4.3 Other findings through Analysis of Google Earth Pro images

4.3.1 Mining activities carried out without obtaining EC

As per order of Hon'ble NGT, Eastern Zone Bench, Kolkata (19 January 2016), mining activities were to be stopped in Bihar due to non-obtaining of EC by the sand lease holders with immediate effects.

Audit observed in analysis of available satellite images on Google Earth Pro that in Sone sand *ghats* in three districts, the mining activities were seen to be carried out in 12 sand *ghats*³ without obtaining Environmental Clearance despite orders of NGT. The images of mining activities without EC are shown in **Figures 62 to 77**:

Bhojpur



Figure 62: Satellite image of khaira *ghat* on May 2016 no extraction was shown.



Figure 63: Image of Khaira sand *ghat* on May 2017 extraction shown where no extraction shown in figure 62.

³ **Bhojpur-** Abgila, Farhangpur-1, Khaira, Khangaon-1 and Sahar and Peurchak sand *ghat*; **Patna-** Jalpura, Kateshar, Kauriya and Saraiya sand *ghat*; **Rohtas-** Danwar, Hurka and Kerpa sand *ghat*.



Figure 64: Satellite image of Khangaon-1 sand ghat on November 2016 no extraction was shown.

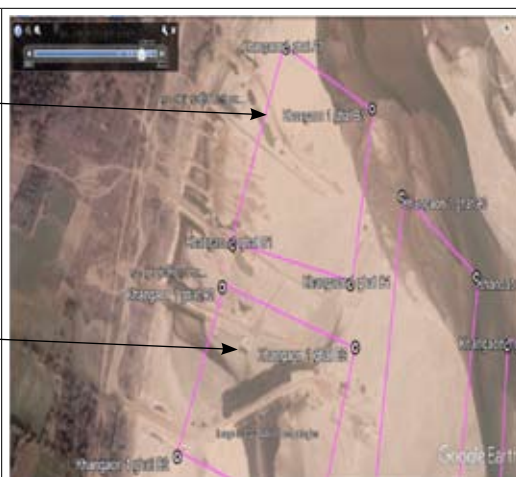


Figure 65: Image of Khangaon-1 sand ghat on January 2017 extraction shown where no extraction shown in figure 64.



Figure 66: Satellite image of Abgila sand ghat on May 2016 no extraction was shown.



Figure 67: Image of Abgila sand ghat on May 2017 extraction shown where no extraction shown in figure 66.



Figure 68: Satellite image of Farahangpur sand ghat on May 2016 where extraction of sand carried out as shown in circle.



Figure 69: Satellite image of Farahangpur sand ghat on March 2017 where extraction of sand carried out as shown in circle.



Figure 70: Satellite image of Sahar & Peurchak sand *ghat* on May 2016 where extraction of sand minerals were seen in circle.

Patna



Figure 71: Satellite image of Kateshar sand *ghat* on May 2016 where sand extraction can be seen in circle.



Figure 72: Satellite image of Kauriya sand *ghat* on January 2017 sand extraction seen in circle.



Figure 73: Satellite image of Jalpura sand *ghat* on October 2016 where sand extraction can be seen in circle.

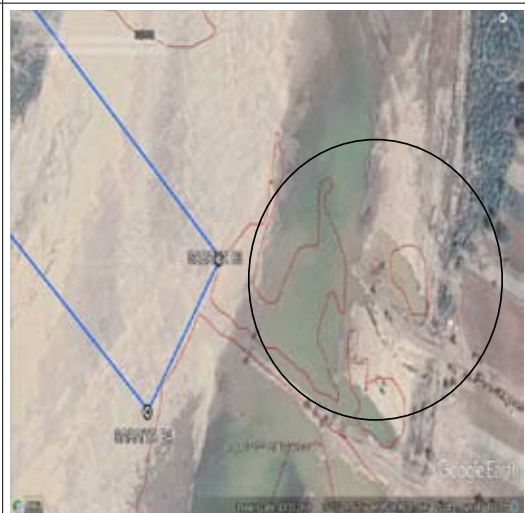


Figure 74: Satellite image of Saraiya sand *ghat* on October 2016 where sand extraction can be seen in circle.

RohtasFigure 75: Extraction shown in circle mentioned in image of Danwar sand *ghat* of May 2016.Figure 76: Extraction shown in circle mentioned in image of Hurka sand *ghat* of May 2017.Figure 77: Extraction shown in circle mentioned in image of Kerpa sand *ghat* May 2016.

Further, EC of Kateshar *ghat* was obtained in December 2016, EC of Sahar & Peurchak, Khaira, Kauriya, Saraiya, Jalpura, Khangaon-1, Farhangpur-1 and Abgila sand *ghat* was obtained in February 2018 and EC of Hurka, Kerpa and Danwar sand *ghats* was obtained in March 2018.

Therefore, it can be observed that MGD failed to enforce the orders of Hon'ble NGT for stopping the mining activity without EC.

The matter was reported to the Department (April 2022); their reply was awaited (23 May 2022).

4.3.2 Mining activities seen in satellite images where nil extraction report was submitted by lessees of sand mining lease

Audit observed from scrutiny of leases of sand *ghats*, in respect of three districts Patna, Bhojpur and Rohtas that lessees had reported nil extraction in two sand *ghats* Janpara-I and Anandpur of Patna district in 2018 and 2019 respectively and in one sand *ghat* Chillhous of Bhojpur district in 2020 (Detailed in **Appendix-12**).

Audit when analysed the satellite images of these sand *ghats* during these periods, noticed that the mining operations were seen to be carried out in the imageries of 2018, 2019 and 2020 in these three sand *ghats* of two districts, as illustrated in **Figures 78 to 80**:



Figure 78: Extraction shown in circle of image of Anandpur sand *ghat* in June 2019.

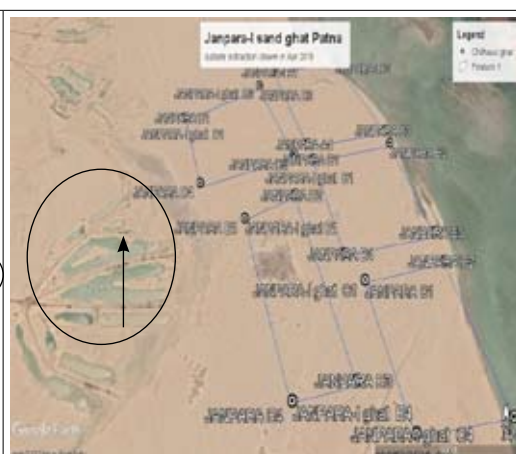


Figure 79: Extraction shown in circle of image of Janpara-1 sand *ghat* in April 2018.



Figure 80: Extraction shown in image of Chillhaus sand *ghat* in March 2020.

4.3.3 Excess extraction against despatches reported by lessees of sand *ghats*

In order to identify the actual extraction by the lessees of sand *ghats*, Audit analysed the areas of six approved sand *ghats*⁴ through Google Earth Pro. These sand *ghats* were selected on sample basis where consecutive images of *ghats* were available in time series imageries for the years 2018, 2019 and 2020 in Google Earth Pro. Google Earth Pro was used as application for calculating the mined area. The interpretation was done on the basis of two consecutive images of different period, one where extraction is not seen in satellite images and other where extraction is seen in images taken after short period. Further, as highlighted earlier that most of the mining was being carried out outside of the approved area, here also, on a conservative basis, the area actually mined nearby to the approved area (including the area inside the approved area) was taken for calculation purpose. The changes of earth after extraction are shown in **Figures 81 and 82**:

⁴ Amirabad Gona, Chaknaha, Darihat-3, Lahladpur, Nisarpura and Katar.



Figure 81: Images captured for Lahladpur sand ghat for the period April 2018.

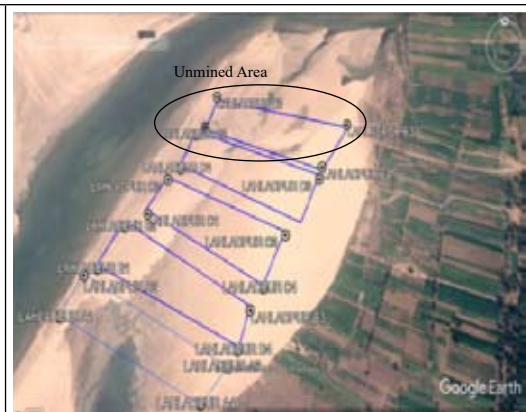


Figure 82: Images captured for Lahladpur sand ghat for the period February 2018.

Further, Audit plotted the mined areas in the form of different polygons in Google Earth Pro, to find the actual mined area between two consecutive periods. Areas of all the plotted polygons adjoining approved areas were considered for the calculation purpose. Bihar Sand Mining Policy, 2013, provides that mining is allowed up to depth of three metres or water level, whichever is encountered first. The same was reiterated in SSMMG, 2016. In this regard, Audit observed that no mechanism was developed by the Department to ascertain the ground water data and no such report was prepared by the Department. Audit, while examining the approved Mining Plan of these areas, observed that the depth of sand in these areas was stated to be at least three metres above water level. Therefore, the volume of extracted sand in consecutive periods was calculated by multiplying the area with three metres of assumed depth. The process of finding out mined area is highlighted in **Figures 83 to 86** on sample basis (as details in **Appendix-13**).

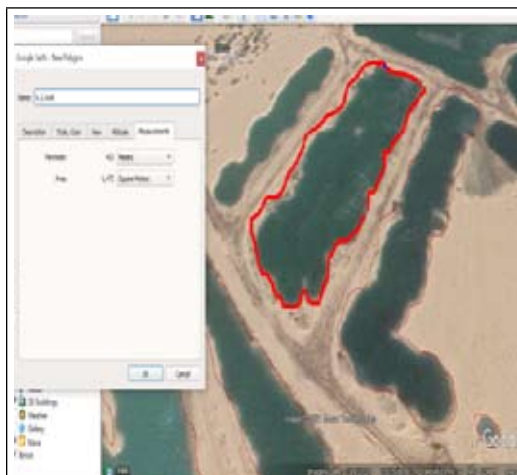


Figure 83: Plotted mined area Amirabad gona image of March 2020.

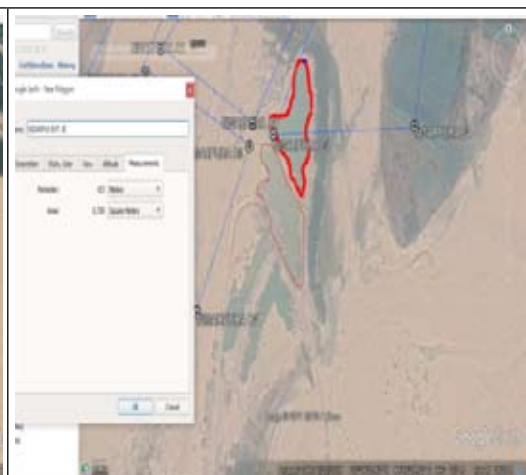


Figure 84: Plotted mined area Nisarpura sand ghat image of January 2019.



Figure 85: Plotted mined area in red boundary in Katar sand *ghat* extraction measured in January 2019.



Figure 86: Plotted mined area in red boundary in Darihat-3 sand *ghat* extraction measured in January 2019.

After the calculation of approximate extracted material observed from the satellite images, audit further compared the despatches of sand as reported by the lessees through database of e-challan. The results are reported in **Table-8**:

Table-8

Name of sand <i>ghat</i>	Period of satellite images which was analysed	Total area found extracted after plotting polygon (square metre)	Total quantity extracted after taken depth three metres as per Mining Plan (cubic feet)	Quantity reported by lessee as per mining database (cubic feet)	Difference (cubic feet)	Remarks
Amirabad gona	May 2019 -March 2020	1,33,578.00	1,41,51,759	1,09,41,350	32,10,409	No extraction was noticed in May 2019
Nisarpura	January 2019	29,921.00	31,69,953	4,48,250	27,21,703	Nil extraction was reported in whole of 2018.
Lahladpur	February 2018-April 2018	30,558.00	32,37,482	23,19,200	9,18,282	No extraction was observed in the area in February 2018.
Chaknaha	November 2018-January 2019	1,87,146.50	1,98,26,962	12,51,518	1,85,75,444	--
Katar	June 2018-January 2019	3,14,580.00	3,33,27,895	1,69,05,000	1,64,22,895	No extraction was seen in the image in June 2018.
Darihat 3	March 2018-June 2018	65,037.40	68,90,329	12,20,700	56,69,629	No extraction was observed in the image in March 2018.
Total		7,60,820.90	8,06,04,380	3,30,86,018	4,75,18,362	

It can be observed from the table above that in above six sand *ghats*, on a conservative basis, approximately 4,75,18,362 cubic feet (59 *per cent*) was reported less by the lessees vis-à-vis the approximated extractions in these *ghats* as observed through Google Earth images.

The matter was reported to the Department (April 2022); their reply was awaited (23 May 2022).

4.4 Measures to monitor the extraction of minerals

As per the Environment Impact Assessment (EIA) Notification 2016, the State Mining Department should print the Transport Permit or Receipt with security features like Unique Bar code, QR code, Fugitive ink, Invisible ink, Water mark *etc.* and issue them to mine lease holder through the District Collector.

- Once these Transport Permits or Receipts are issued, they should be uploaded on the server against that mine lease area.
- Each receipt should preferably be with pre-fixed quantity, so that the total quantity gets determined for the receipts issued.
- When the Transport Permit or Receipt barcode gets scanned and invoice is generated, that particular barcode gets used and its validity time is recorded on the server. Therefore, all the details of transporting of mined out material can be captured on the server and the Transport Permit or Receipt cannot be reused.
- The route of vehicle from source to destination can be tracked through the system using check points, Radio Frequency Identification (RFID) Tags, and Global Positioning System (GPS) Tracking.
- This system would enable the authorities to develop periodic reports on different parameters like daily lifting report, vehicle log or history, lifting against allocation and total lifting.
- The system can be used to generate auto mails or SMS. This will enable the District Magistrate to get all the relevant details and shall enable the authority to block the scanning facility of any site found to be indulged in irregularity. Whenever any authority intercepts any vehicle transporting illegal sand, it shall get registered on the server and shall be mandatory for the officer to fill in the report on action taken. Every intercepted vehicle shall be tracked.

The monitoring of mined out mineral, environmental clearance conditions and enforcement of Environment Management Plan will be ensured by the DEIAA, SEIAA and the State Pollution Control Board or Committee. The monitoring arrangements envisaged above shall be put in place not later than three months.

Audit observed that the MGD, had implemented an integrated IT solution (October 2017) for increasing their revenue and curbing illegal mining effectively. In this regard, the MGD further considered the Request for Proposal (RFP) prepared by Price Waterhouse Coopers (PWC) under Grow Bihar Project Scheme funded by erstwhile Department for International Development (DFID). After getting through the RFP, the Department assessed that it would take 27 months to complete the software and its costing would be ₹ 2.50 to ₹ 3.00 crore.

Due to time and cost constraints, the MGD procured source code of software from the Odisha Government (made by M/s i3MS) which was running in Odisha State successfully. According to the Department, the procured software should have fulfilled the desired objective of the Mines and Geology Department and the Department claimed that this was helpful in curbing the illegal mining in the State of Bihar. Further, the Department hired an agency M/s CSM Technology Private Limited for customisation of procured software as per need and further running of customised software on nomination basis. An agreement was signed

(February 2018) between the Mines and Geology Department, GoB and M/s CSM Technology Private Limited for functioning as Project Monitoring Unit.

As per agreement, 20 modules⁵ of the software were to be customised to make it functional for the Department. In addition to this, other changes, whenever required by the Department, were also to be made and to be functional. The main work of Project Management Unit (PMU) at Department level (October 2017) was to monitor the functional status of all the planned modules in the IT system.

In this regard, Audit observed that, out of 20 planned modules, only five modules⁶ were functioning. With respect to the EIA notification, only facility to generate e-challans and block them manually was made functional. The security features of e-challans as enumerated in the EIA notification, were not present as a large number of e-challans were found to be fake during audit (detailed in the paragraph below). Further, it was observed that the IT system was being used only for generating e-challans without controls as other modules were non-functional, the impact of which is highlighted in paragraphs below. Audit also observed that:

- When requisitioned by Audit, the basic documents for the functioning of IT systems like User Requirement Specification (URS), Software Design Document (SDD) *etc.* were not available with the Department. In absence of SDD, the Department was fully dependent on the private software developers to handle the critical project.
- Further, major modules like Mineral Carrying Vehicle Registration (for identification of vehicles), RTO integration (for verification of vehicles) and Geo-fencing Module (for tracking the real-time and historical movement of vehicles) were not made functional which were also envisaged in original RFP.
- The important feature like tracking of vehicular movement, interception reports of illegal mining required for monitoring the movement of the minerals was absent in the present system.
- MMDR Act and BM (CPTS) Rules, 2019 also provide that check posts and weigh bridges were to be set up to ensure effective vigil on illegal mining and transportation of minerals. But, as per records of DMOs, this equipment was not installed at mining sites. It was further observed that only four check posts were notified in three districts⁷ out of 14 sampled districts. No check posts were installed or notified in the remaining 11 districts. Thus, Department's capability to curtail illegal mining was limited.
- The responsibility of generating e-challans was assigned to lessees without validation controls like automatic capture of weight of mineral despatched, type of vehicles, *etc.*

⁵ System study and Gap analysis, Mines and Dealer Profile, e-permit, (BULK QTY DISPATCH), e-transit pass, Mobile apps (e-enforcement), Mineral carrying vehicle registration, Online Payment Registration, Grant of Short term Permits, New/Renewal of Licences for supplier & crushers, Weigh Bridge Registration, Mineral Concession (pre & post activity of e-auction), SMS and e-mail integration, Monthly Progress Return, Demand assessment, Grievance Monitoring, Case Management, Dues Clearance Certificate, RTO integration, MIS report and Vehicle seizure.

⁶ Mines and Dealer Profile, e-transit Pass, New/Renewal of Licences for supplier & crushers, Weigh Bridge Registration and MIS report.

⁷ Bhagalpur, Kaimur and Nawada.

In absence of major modules, when Audit analysed the database of e-challans, it was observed that there were several cases of mineral being carried by unrealistic vehicles, irregular generation of e-challans as high number of trips in single day, lower reporting of extractions, excess mineral being carried out by the vehicles against approved weight, non-verification of e-challans *etc.* as described in succeeding paragraphs. Further, capping of maximum quantity of minerals to be mined was provided for each *ghat* in the IT system.

However, it was observed in DMO, Patna that 46,68,862 cubic feet⁸ sand (22 *per cent*) was extracted in excess by the lessee in Udaipur sand *ghat* against approved capping in year 2018. This shows non-existence of validation control to monitor excess extractions.

Thus, the objective of placing monitoring system stands defeated and at the same time, it reveals failure of the Department in controlling illegal mining.

The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendations: The Department should make functional, important modules like Geo-fencing module alongwith Radio Frequency Identification (RFID) Tags, and Global Positioning System (GPS) tracking so that the route of vehicle from source to destination can be tracked through the system using check points. Further, Department should setup the mechanism to monitor any breakdowns of vehicles carrying mineral, interception of illegal vehicles by different agencies and ensure that suitable actions are taken in such cases.

4.5 Transportation of minerals by unrealistic vehicles

Audit obtained database of e-challans for the period 2017 to 2021 for analysis. During analysis of e-challan database maintained by PMU under MGD and its verification with *VAHAN* database, it was observed that in 14 sample districts, 2,43,811 e-challans were generated using 46,935 unrealistic vehicles like ambulance, bus, auto rickshaw, car, motorcycle *etc.*, shown to be used for transporting minerals (Details in **Table-9** below). From the nature of transportation vehicles shown in database, it was not possible to carry minerals by these vehicles, therefore, it can be inferred that mineral has not been carried by these vehicles. Audit further analysed the reasons for using unrealistic vehicles on the sample basis and found that 140 unrealistic e-challans were submitted by the contractors in different works divisions. As there was no linkage of e-challan with RTO database, there was no validation control present in the e-challan database to capture the type of vehicle automatically. The vehicle data as well as the quantity of mineral loaded was being entered manually in the system by the lessees themselves. Thus, one of the possible reasons for using unrealistic e-challans and unrealistic vehicles might be to satisfy the works division's requirements for release of royalty.

⁸ Extraction in excess = Total extraction – Capping on extraction as per approved mining plan = 2,56,88,350 cft – 2,10,19,488 cft = 46,68,862 cft.

Table-9
Minor Minerals

Class of vehicle		Range of mineral carried at a time (MT)	No. of vehicles	No. of e-challans generated	Mineral weight (MT)
Ambulance		4 - 24	4	10	124.00
Bus		3.51 - 47.36	543	2,867	35,789.55
Camper Van		4 - 4	1	10	40.00
Construction Equipment Vehicle		4 - 38.97	10	12	84.97
E-Rickshaw		4 - 18	2	3	26.00
Fire Fighting Vehicle		4 - 4	2	2	8.00
Harvester		4 - 4	3	10	40.00
Maxi Cab/ Goods Carrier		0.41 - 52.21	19,762	1,24,628	10,88,830.83
Motor Cycle/ Scooter		0.14 - 52.1	15,616	62,843	6,44,178.94
Motor Cab		0.39 - 51.66	1,252	5,048	36,457.50
Motor Car		1.02 - 52.07	1,930	9,245	86,861.62
Three- Wheeler		0.16 - 52.2	7,810	39,133	3,85,385.16
Gross Total			46,935	2,43,811	22,77,826.57

In the course of further scrutiny of these e-challans, it was also observed that in 35,262 e-challans, 588 unrealistic vehicles *i.e.* motorcycle, bus, three-wheeler *etc.* were found to be used multiple times in single day like car up to 139 times, Motorcycle up to 181 times *etc.* Details of unrealistic vehicles are given in **Table-10**:

Table-10

Class of vehicle	No. of trips per day	No. of vehicles	No. of e-challans generated	Mineral weight (MT)
Bus	11-83	8	354	6,306.00
Maxi Cab/Goods Carrier	11-715	290	18,536	3,14,785.12
Motor-Cycle/Scooter	11-181	163	9,357	1,60,162.84
Motor Cab	11-115	9	328	4,952.00
Motor Car	11-139	31	1,749	33,110.00
Three- Wheeler	11-264	87	4,938	83,440.00
Total	11-715	588	35,262	6,02,755.96

Further, Audit analysed the trend of unrealistic e-challans and found that most of these were used in June. As the scheduled verification of *ghats* is carried out in July, some of the despatches seems to be shown only to justify the extractions.

This indicates that there was no input control mechanism available in the software for monitoring the number of e-challans generated for a particular vehicle. It provides lessees, a chance to generate e-challans in excess using identical vehicle numbers for legalising the amount of extraction and storage of minerals, hence, undermines the purpose of implementation of e-challan software.

Therefore, it is evident that minerals were shown as despatched on unrealistic vehicles with e-challans generated at mass level. So, e-challans were being generated by the lessees only as a customary requirement. The MGD failed to monitor and prevent this (District wise details are in **Appendix-14**).

On this being pointed out, the Department stated that unrealistic e-challans were submitted by the contractors to the Works Department. The MGD has already taken steps to integrate the database of e-challans with the *VAHAN* software. A restriction has also been placed in e-challan system on the trips undertaken by a vehicle to prevent any misuse in future.

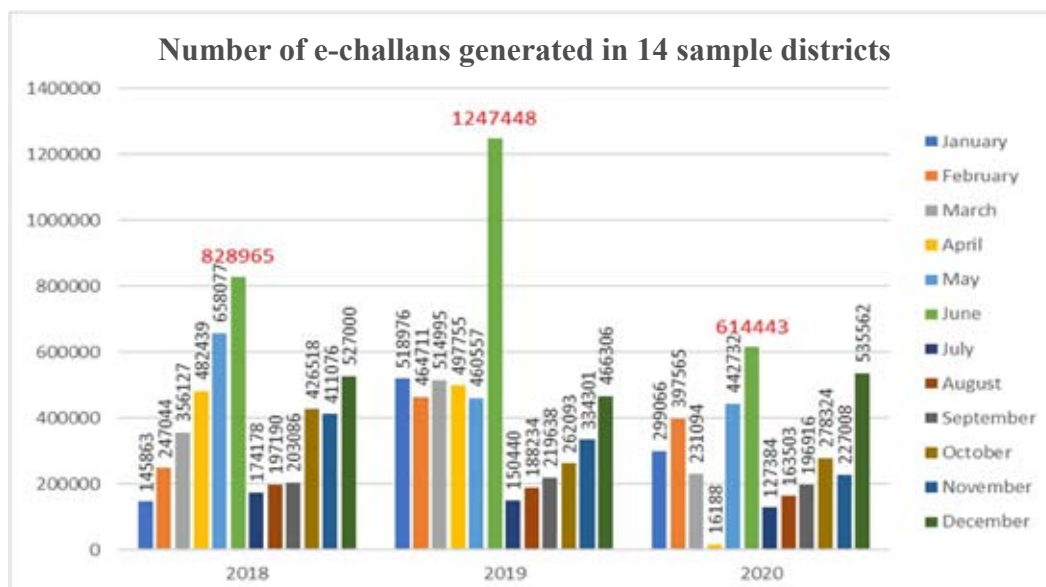
The Department has accepted the audit point and stated (17 May 2022) that the required corrective measures were being taken.

Recommendation: The Department should integrate the database of Mines & Geology Department with the *VAHAN* database to prevent the generation of e-challans on unrealistic vehicles.

4.6 Irregular generation of e-challans

As per the Department's order (every year), every lessee must stock sufficient quantity of sand before monsoon owing to non-mining in the month of July, August and September. Further, every DMO must verify the quantity of these stocks of sand before starting of the monsoon for ensuring the availability of sand in the State. To comply these orders/norms, the concerned lessees had to despatch sand for stocking which may cause frequency as well as number of the e-challans to be generated during the month of June higher than that during other months. However, Audit observed that lessees of all 14 sampled districts had generated unusually higher number of e-challans to show transportation of sand in June month as details mentioned in **Chart-11**:

Chart-11



4.6.1 Sand

Scrutiny of the sample data of these e-challans generated in the month of June for the years 2018 to 2020 revealed that identical vehicle numbers have been used for generating large number of e-challans mentioning large quantities of minerals carried beyond the possible limits of vehicle capacity. Further, it was also observed in 11 DMOs⁹ that in 15,723 cases, numbers of e-challans from 11 to 861 were generated for one vehicle in one day to carry minerals which was not possible. District wise details are shown in **Table-11**:

Table-11

District	No. of vehicles used	No. of cases	No. of trips of vehicles per day	No. of e-challans generated	Mineral weight (MT)
1. Aurangabad	440	1,271	11 to 36	17,840	3,80,134
2. Banka	252	1,130	11 to 95	19,669	2,58,117
3. Bhagalpur	6	6	12 to 25	106	724
4. Bhojpur	2,556	6,776	11 to 498	3,04,063	54,51,967
5. Gaya	179	507	11 to 69	9,432	1,51,650
6. Nalanda	59	319	11 to 42	5,040	86,708
7. Nawada	559	1,540	11 to 861	69,730	13,29,062
8. Patna	1,695	3,901	11 to 597	1,54,378	29,51,862
9. Rohtas	185	252	11 to 22	3,386	76,780
10. Siwan	1	1	19 to 19	19	342
11. Vaishali	12	20	11 to 15	244	4,176
Grand Total	5,104¹⁰	15,723	11 to 861	5,83,907	1,06,91,522

⁹ Aurangabad, Banka, Bhagalpur, Bhojpur, Gaya, Nalanda, Nawada, Patna, Rohtas, Siwan and Vaishali.

¹⁰ In 5,944 vehicles, there are 5,104 vehicles with different registration numbers.

4.6.2 Stone

Audit further observed that in four districts *i.e.* Aurangabad, Gaya, Nawada and Sheikhpura, the concerned lessees used to despatch stone during 2018 to 2020, for which e-challans were generated for more than 10 to 142 times in a day for a particular vehicle. It has been found that total 794 number of cases generating 11,397 e-challans for 294 different vehicle numbers found to carry 2,52,432.53 MT of stones in four districts. Details are given in **Table-12**:

Table-12

District	No. of vehicles used	No. of cases	No. of trips of vehicles per day	No. of e-challans generated	Mineral weight (in MT)
Aurangabad	6	6	11 to 12	70	2,587.89
Gaya	105	285	11 to 52	3,864	69,401.66
Nawada	24	25	11 to 36	357	6,310.87
Sheikhpura	163	478	11 to 142	7,106	1,74,132.11
Grand Total	294¹¹	794	11 to 142	11,397	2,52,432.53

The matter was reported to the Department (April 2022); their reply was awaited (23 May 2022).

Recommendation: The Department should put in a validation control based on the destination location in the system so that irregular generation of challans in a single day could be avoided.

4.7 Fake e-challans used in works divisions

Rule 40 (10) of BMMC Rules, 1972 provides that works contractor shall purchase minerals from lessee/permit holder and authorised dealers only. Works Department shall not accept the bill by which the works contractor submits to recover cost of mineral used by them, unless the same is accompanied with prescribed forms 'M' and 'N'. These forms describe the names and addresses of the dealers from whom the minerals were purchased.

As per notification (September 2019) of MGD, M and N system was eliminated, and e-challan of minerals consumed in works was to be verified by concerned works divisions itself through e-challan verification web portal.

During scrutiny of records related to works divisions and DMOs, total 33,191 number of e-challans in different works divisions were verified by Audit. Out of which, 21,192 e-challans were found fake which were used in different construction works in 16 works divisions, as detailed in **Appendix-15**. Of these 8,169 fake e-challans were earlier declared as verified and valid by the concerned DMOs, as per the records of works divisions. When Audit requisitioned DMOs about such verification, DMOs denied having verified such e-challans. Audit also analysed the letter outward register at DMO offices and noticed that letters from DMOs regarding verifying the mineral were not found in records. Therefore, it was found that not only e-challans but the verification letters were also fake.

¹¹ In 298 vehicles, there are 294 vehicles with different registration numbers.



The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The MGD should develop co-ordination mechanism with works divisions and Departments to ensure that the authenticity of e-challans are being regularly checked in works divisions so that the loss of royalty and misuse of e-challans could be avoided.

4.8 Loss of revenue due to irregular/illegal verification of form M and N : ₹ 5.80 crore

Rule 40 (10) of BMMC Rules, 1972 provides that works contractor shall purchase the minerals from lessee/permit holder and authorised dealers only. Works Department shall not accept the bill by which the works contractor submits to recover cost *etc.* of mineral used by them unless the same is accompanied with prescribed forms 'M' and 'N'. These forms describe the names and addresses of the dealers from whom the minerals were purchased.

Further, Section 21 (5) of the MMDR Act, 1957 read with Rule 40(8) of the BMMC Rules, 1972 provides that whenever any person, without any lawful authority, raises any mineral from any land, the State Government may recover from such person the minerals so raised, or, where such minerals has already been disposed of, the price thereof, and may also recover from such person, rent, royalty or tax, as the case may be.

The Principal Secretary, Mines and Geology Department with the approval of the Chief Secretary, Government of Bihar, had also issued instruction (January 2016) to all works departments to deduct penalty equivalent to royalty along with royalty if the works contractor had not submitted the form 'M' and 'N' along with bills as per provision of BMMC Rules. Further, Department instructed all Works Departments to furnish quarterly statement of deduction and remittance of royalty and remit the amount already deducted as royalty from the bills of works contractor and kept with the works division into mining head.

Further, MGD issued SOP in February 2019 regarding verification of form M and N. As per SOP, all works divisions must send form M and N received from works contractor to the Department for its verification and the Department would verify the same through concerned DMOs. The same procedure was applicable for minerals procured from other States.

Audit observed in six works divisions¹² in two districts¹³ that 16 contractors produced form M and N of minor minerals (stone aggregate/GSB, sand, murram and bricks) consumed in 17 different works in the concerned divisions. The works divisions sent the M and N to concerned DMOs (Sheikhpura, Nawada and Bhagalpur) for its verifications and the same was verified by the concerned DMOs. Further, the concerned divisions did not deduct royalty from contractor's bill after receipt of form M and N. But, in course of audit no documents related to verification of above M and N forms were found in the records of concerned DMOs. Further, Audit scrutinised the outward/despatch register and no letter regarding verification of above form M and N was found. This also shows lack of co-ordination between Works Department

¹² (i) RWD, Harnaut, (ii) RWD, Biharsharif, (iii) BCD, Bhagalpur, (iv) RCD, Bhagalpur, (v) Minor irrigation division, Bhagalpur and (vi) NH division, Bhagalpur.

¹³ Bhagalpur and Nalanda.

and MGD. Audit further observed that concerned works divisions irregularly sent form M and N received from six contractors in seven different works directly to Sub Divisional Land Reforms Officer, Suri sadar, Birbhum, Government of West Bengal against the SOP of verification of form M and N. Further, one contractor in one work verified the form M and N himself from concerned MO and sent the verification letter to concerned division and got relief from deduction of royalty.

This not only constituted a fraud against the Government but at the same time, the Government suffered a loss of ₹ 5.80 crore in shape of royalty which was not deducted from the bills of contractors by the works divisions in the event of irregular/illegal verification of form M and N (Detailed in **Appendix-16**).

The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The Department should investigate upon the above matter regarding availability of fake verification letters from mining offices and fix responsibility on erring officials.

Chapter-5
**Mines and Mineral Development,
Restoration and Rehabilitation
Fund**

Chapter-5

Mines and Mineral Development, Restoration and Rehabilitation Fund

Bihar District Mineral Foundation Fund

The Government of India (GoI) made the Mines and Minerals (Contribution to District Mineral Foundation) Rules, 2015 effective from 12 January 2015 and prescribed (17 September 2015) the amount of contribution to be made to the District Mineral Foundation (DMF) by the lease holders. The State Government formed (May 2018) Bihar DMF Rules¹, 2018 for the interest and benefit of persons in the areas affected by mining related operations after lapse of 32 months from amendment of MMDR Act by GoI.

As per Rule 11 of Bihar DMF Rules, 2018, the expenditure and utilisation of funds accrued under the DMF shall be done as per *Pradhan Mantri Khanij Kshetra Kalyan Yojana* (PMKKKY) or in a manner as decided by the Central/ State Government from time to time and the DMF shall abide by all guidelines and directions issued in respect of PMKKKY and/or any other schemes by the Central/ State Government, as applicable.

According to PMKKKY guidelines, it covers the activities listed below:

- (i) High priority areas- At least 60 *per cent* of PMKKKY funds to be utilised in mining affected area for affected people under these heads: (a) Drinking water supply (b) Environment preservation and pollution control measures (c) Health care (d) Education (e) Welfare of women and children (f) Welfare of aged and disabled people (g) Skill development and (h) Sanitation.
- (ii) Other priority areas- Up to 40 *per cent* of PMKKKY fund to be utilised under these heads: (a) Physical infrastructure (b) Irrigation (c) Energy and Watershed Development and (d) Any other measures for enhancing environmental quality in mining districts.

DMF Rules and PMKKKY guidelines stipulate that for the purposes of utilisation of the DMF Fund, the DMF shall identify the directly affected and indirectly affected areas and people and shall prepare and maintain an updated list of such areas.

As per notification issued (September 2015) by Ministry of Mines, GoI, amount of contribution to the District Mineral Foundation Trust (DMFT) would be two *per cent* of the royalty paid in respect of mining leases or prospecting licence-cum mining leases granted on or after 12 January 2015. Further, as per Rule 9(3) of Bihar DMF Rules, 2018, in case of minor mineral, the amount of contribution to be made would be two *per cent* of the annual auction/settlement amount/compound royalty as per category fixed or at the rate prescribed by the State Government from time to time. In case of brick earth, royalty payable by permit holder/royalty paid by existing lease holder would be charged on annual basis and credited to the Foundation, in addition to the amount payable to the Government on account of such concession.

¹ Notification No. 2197 on dated 23.05.2018.

Audit Findings

5.1 Non-utilisation of District Mineral Foundation Fund: ₹ 82.30 crore

Audit observed in 14 sampled DMOs that a total amount of ₹ 91.86 crore was realised towards DMF Fund during December 2014 to September 2021 (including Separate Corpus Fund and interest) at the prescribed rate from the holders of mining leases of sand *ghats*, stone, limestone quarries and brick kilns and was deposited into the bank account opened in the name of concerned District Mineral Foundation and controlled jointly by concerned District Collector and Mining Officer. Out of total realised amount, total 93 schemes were selected in 13 DMOs² amounting to ₹ 36.60 crore against which ₹ 9.56 crore were spent (September 2021), as detailed in **Appendix-17**. Thus, District Mineral Foundation, in various districts, did not utilise DMF Fund even after lapse of five years from its effective date (January 2015) and after more than three and half years from formation of Bihar DMF. As a result, ₹ 82.30 crore were still parked in DMF Fund. Due to non-utilisation of the DMF Fund, the objectives of the Fund remained unattended.

On this being pointed out, the DMOs stated that action would be taken as per DMFT Committee. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The Department may ensure utilisation of DMF Fund for development and rehabilitation work of mining affected areas and people as per DMF guidelines.

5.2 Non-utilisation of District Mineral Foundation Fund for purchase/installation of testing, screening and other equipment in connection with preventing the spread of COVID-19 pandemic

As per instructions of Secretary (March 2020), Ministry of Mines, Government of India, owing to emergent national interest to combat the COVID-19 pandemic, the State Government may utilise the funds not exceeding 30 *per cent* of the balance funds available under DMF for supplementing and augmenting facilities of medical testing, screening and other requirements in connection with preventing, the spread as well as for treating the patients affected with COVID-19 pandemic.

Again, with reference to D.O letter³ (June 2020) of Secretary, Ministry of Rural Development, Department of Rural Development, GoI, 32 districts of Bihar were selected under *Garib Kalyan Rojgar Abhiyan* for providing livelihood opportunities to returning migrants and similarly affected rural citizens, saturate villages with public infrastructure and create livelihood assets. This scheme had to be run for 125 days and funds were to be utilised from DMF Fund.

Audit observed in 14 sampled DMOs that ₹ 20.76 crore (30 *per cent*) of the total available ₹ 69.19 crore⁴ DMF Fund (as on March 2021) in these districts were available for supplementing and augmenting facilities of medical testing,

² Aurangabad, Banka, Bhojpur, Gaya, Kaimur, Nalanda, Nawada, Patna, Rohtas, Saran, Sheikhpura, Siwan, and Vaishali.

³ Letter No. J-11060/24/2020-RE-III (371864) dated 22.06.2020.

⁴ ₹ 13.81 crore kept in Separate Corpus Fund were not included.

screening and other requirements in connection with preventing the spread of COVID-19 pandemic. However, only four DMOs (Bhojpur, Gaya, Sheikhpura and Siwan) marginally utilised the amount of ₹ 0.49 crore (two *per cent*) from DMF Fund for afore-mentioned purposes. Thus, even though substantial amount of ₹ 20.27 crore was available with State for combating COVID-19 pandemic, the same remained unutilised owing to inactions on the part of DMOs (Detailed in **Appendix-18**).

On this being pointed out, the DMOs stated that necessary action had been taken in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

5.3 Non-transfer of Separate Corpus Fund amount to DMF bank account: ₹ 29.63 lakh

The MGD issued (September 2018) directions to all District Collectors to transfer the amount received as Separate Corpus Fund into DMF account.

Audit observed in DMO, Bhagalpur that the lessee of sand mining lease submitted demand draft of Separate Corpus Fund amounting to ₹ 29.63 lakh (two *per cent* of settlement amount of period 2015 to 2017). Details are as under in **Table-13**:

Table-13

Sl. No.	Year	Settlement amount (in ₹)	Amount of Separate Corpus Fund (in ₹)	Bank D.D. No./Date
1.	2015	1,87,94,580	3,75,890	024620/27.06.2016
2.	2016	5,88,00,000	11,76,000	024619/27.06.2016
3.	2017	7,05,60,000	14,11,200	001614/01.03.2017
Total		14,81,54,580	29,63,090	

Further, it was observed (as per statement of bank account) that ₹ 15,51,890 only (as mentioned in Sl. No. 1 and 2 of above table) were found deposited in the bank account maintained by District Collector Office, Bhagalpur and the total balance amount was remitted into treasury (March 2018).

Further, the DD⁵ of ₹ 14,11,200 was not found deposited in the above bank account which raises the possibility of fraud and misappropriation.

Thus, even after lapse of more than 45 months of date of opening of DMF account, DMO/DM could not take proper action to locate the missing amount and to transfer the amount of Separate Corpus Fund into DMF bank account.

On this being pointed out, the DMO stated that matter would be examined properly. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The Department should investigate the whereabouts of the funds and may ensure that total amount kept in Separate Corpus Fund should be reconciled and transferred in the account of District Mineral Foundation.

⁵ DD No. 001614 dated 01.03.2017.

5.4 Non-transfer of Separate Corpus Fund/DMF Fund amount kept in Punjab National Bank into SBI account of DMF Fund and non-realisation of amount deducted by Income Tax Department

Audit observed in DMO, Bhojpur that Separate Corpus Fund/DMF Fund was kept in the savings bank account⁶ till October 2018 opened on 27 July 2015. Further, another savings bank account⁷ for DMF was opened on 28 September 2018. The District Collector, Bhojpur requested (October and December 2018) PNB to transfer the Separate Corpus Fund to DMF bank account, but the amount was not transferred (July 2021).

Total balance as per passbook of PNB account was ₹ 6.97 crore as on 1 December 2019. Thus, huge amount of DMF was kept unutilised in the Punjab National Bank. This was pointed out earlier also (October 2019) by Audit. But, action had not been taken by the DMO or the Department.

Audit further observed that Income Tax Department raised demand of penalty including interest under section 226 (3) of IT Act for e-TDS default by TAN holder (DMO Bhojpur) with respect to all brick kiln owners for the period 2014 to 2017. In this connection, a DD of ₹ 88.53 lakh from DMF account was transferred (February 2019) to Income Tax Department. This issue was also raised earlier (October 2019) by Audit but no action for recoupment of DMF amount was taken by DMO (July 2021).

On this being pointed out, the DMO stated that correspondence would be made to concerned officer/Bank for transfer of amount from PNB to SBI. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The Department may take necessary steps to transfer the amount of Separate Corpus Fund kept in Punjab National Bank to the account of District Mineral Foundation.

5.5 Non-payment of District Mineral Foundation Fund in lumpsum

As per Supreme Court Order No. transferred case (civil) No. 43 of 2016, October 13, 2017, full contribution to the District Mineral Foundation Fund was required to be made by the holder of mining lease or a prospecting licence-cum-mining lease by 31 December, 2017 in the case of minerals other than coal, lignite and sand; failing which, lessee would be liable to make contribution with interest at the rate of 15 *per cent* per annum from the due date.

Audit observed that mining lease of limestone situated at Murali Pahari in Rohtas district was renewed in favour of M/s Kalyanpur Cement Ltd. for a period of 20 years with effect from 02.01.2012 by the MGD⁸ (June 2017) with a condition to pay DMF in lumpsum. A sum of ₹ 1.87 crore was calculated as DMF Fund by the DMO and the same was paid by the lease holder in 36 instalments instead of paying in lumpsum. Interest on delayed payment amounting to ₹ 44.84 lakh was also not levied by the DMO. In this regard, a letter has already been issued by the Department to DMO, Rohtas (September 2018), but action taken was not found on record.

⁶ A/c No. 0022000103434856 in Punjab National Bank (PNB), Ara branch.

⁷ Savings Bank Account No. 37975902406 in SBI, Ara branch.

⁸ MGD Letter No. 1613 dated 19.06.2017.

On this being pointed out, the DMO stated that demand notice would be issued to concerned lessee. The matter was reported to the Department (April 2022), their reply was awaited (May 2022).

5.6 Non/short realisation of District Mineral Foundation Fund from sand/stone lease holders and brick kiln owners: ₹ 2.49 crore

Audit observed that five DMOs⁹ did not ensure realisation of contribution towards DMF Fund of ₹ 1.87 crore from the lessees of sand and stone quarries during 2018-21, as detailed in **Appendix-19** and in 11 DMOs¹⁰, ₹ 0.62 crore from 6,164 Brick kiln owners during 2017-18 to 2020-21 as detailed in **Appendix-20**. This resulted into non/short realisation of contribution towards DMF Fund for ₹ 2.49 crore.

On this being pointed out, the DMOs stated that action would be taken after proper verification. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

5.7 Non-levy of DMF Fund on royalty charged for excess extraction of sand: ₹ 21.16 lakh

As per clause 15 (ii) of notification No. 2/MM(B)02/09 Part-(I)-61/MC dated 13.03.2013 of settlement order for sand *ghats*, the lessee had to pay extra royalty for the quantity of sand extracted in excess of the quantity of sand equivalent to settlement amount. The notification provided that the amount so collected for DMF shall be kept in any scheduled Bank.

Audit observed in:

- DMO, Nawada that the lessee was required to pay royalty of ₹ 4.15 crore for the period 2017-19 for excess quantity of extracted sand. The lessee had paid ₹ 1.43 crore and ₹ 1.46 crore only as excess royalty for the year 2017 and 2018 respectively. The lessee was also required to pay ₹ 8.30 lakh for DMF Fund on the extra royalty charged for excess quantity of extracted sand, but the lessee did not pay the same (September 2021).
- DMO, Patna that the lessee did not pay ₹ 12.85 lakh of DMF Fund (September 2021) on royalty charged for excess quantity of extracted sand. Details are given in **Appendix-21**.

On this being pointed out, the DMOs stated that action would be taken in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The Department should ensure deduction of prescribed amounts from all mineral concession holders and credit these into Government account for further transfer to the DMF Fund.

⁹ Aurangabad, Banka, Nawada, Rohtas and Sheikhpura.

¹⁰ Aurangabad, Banka, Bhagalpur, Kaimur, Nalanda, Nawada, Patna, Saran, Siwan, Sheikhpura and Vaishali.

5.8 Non-levy of interest on delayed payment of DMF Fund from lessees of sand *ghats* and stone quarries: ₹ 1.67 crore

It was observed that lessees of sand *ghats* in 10 DMOs¹¹ had paid the DMF Fund with delay ranging between one and 443 days during calendar years 2015 to 2019 and extended period up to March 2021.

It was further observed that lessees of stone quarries in three DMOs¹² had paid DMF Fund with delay ranging between one and 965 days during calendar years 2016 to 2021. According to the provisions of DMF, in the event of delay payment by lessees, the concerned DMOs had to levy interest of ₹ 1.67 crore (at the rate of 24 *per cent* per annum). Thus, non-levy of interest for delayed payment of DMF Fund resulted in non-realisation of ₹ 1.67 crore as detailed in **Appendix-22**.

On this being pointed out, the DMOs stated that action would be taken in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The Department may ensure that interest is levied and collected on delayed payment of DMF Fund by the sand/stone lease holders.

5.9 Non-maintenance of account of District Mineral Foundation Fund

According to Rule 12 of Bihar District Mineral Foundation Rules, 2018, the accounts of DMF should be maintained in the form mode and manner and would be audited in such manner as may be decided by the Government. After audit, DMF would submit the annual report to the Government. Again, according to Rule 6 of PMKKKY guidelines, the accounts of DMF shall be audited every year by a Chartered Accountant, or in such other manner as the Government may specify, and the report thereof shall be placed in the public domain along with the annual report. Further, PMKKKY guidelines stipulate that an amount not exceeding five *per cent* of the annual receipts of the Foundation subject to an upper limit fixed by the State Government may be utilised for administrative, supervisory and overhead costs of the Foundation.

Audit observed in 14 sampled districts that separate bank account of DMF and separate cash book of PMKKKY and DMF were not being maintained. Only demand and collection register of DMF was being maintained by the concerned DMOs. Audit further observed that DMF had not appointed CA for conducting the audit since its creation.

On this being pointed out, the DMOs stated that action was being taken for maintenance of cashbook and direction would be taken from the Department for audit of DMFT. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The department may ensure adherence of DMF guidelines and appoint CA for audit of accounts of District Mineral Foundation.

¹¹ Aurangabad, Bhojpur, Gaya, Kaimur, Nalanda, Nawada, Patna, Rohtas, Saran and Vaishali.

¹² Aurangabad, Nawada and Sheikhpura.

5.10 Non/short realisation of Royalty, Seigniorage Fee and DMF Fund for use of ordinary earth: ₹ 4.58 crore

Audit observed in seven DMOs¹³ that ₹ 10.91 crore were deposited by contractors/agencies as royalty for extraction of ordinary earth. It was also noticed that the contractors/agencies used ordinary earth without obtaining valid permit from concerned DMOs. This resulted into non/short realisation of Royalty and Seigniorage Fee and DMF Fund of ₹ 4.58 crore as detailed in **Appendix-23**.

Further, it was also observed that the contractors had not submitted the estimate of work to the DMOs. Hence, it was not ascertained by the DMOs that how much quantity of earth was consumed in a particular work. In this regard, DMOs had not taken any action against contractors for not providing the estimate of work and not realised the due Royalty, Seigniorage Fee and DMF Fund.

On this being pointed out, the DMOs stated that action would be taken after verification. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

¹³ Aurangabad, Bhojpur, Kaimur, Nalanda, Patna, Saran and Vaishali.

Chapter-6

**Internal control, Monitoring
mechanism and Inter-departmental
co-ordination**

Chapter-6

Internal control, Monitoring mechanism and Inter-departmental co-ordination

As per circular (September 2005) of the MGD, a task force for prevention of illegal mining and overloading was to be constituted in each district. The Department issued (January 2010) further instructions to each District Collector, to hold meetings of the Task Force at least once a month and to send action taken report to the Department in first week of every month. The task force was mandated to prevent illegal mining, to check mining areas, to inspect brick kilns and to inspect sand settlement areas.

As per letter No. 2622/M dated 24.09.2012 issued by the Principal Secretary of MGD, GoB, a committee was set up in respect of preventing illegal mining and a directive was issued. The followings were decided and recommended for prevention of illegal mining:

1. joint inspections by Mining Department, Forest Department, Transport Department and Commercial Taxes Department.
2. set up a task force for inspection.
3. detailed inspection by concerned circle office and police in charge.
4. set up for road checking.
5. inspection of illegal mining in forest area and action to be taken as per rule.

Under the provision of the BMMC Rules, 1972 and instructions issued by the Government (1986), Mines Inspector had to inspect the area of brick kilns and mining leases in every three months for detection of illegal mining. Further, Deputy Directors of Mines (DDMs) have to inspect the mining offices once in a year. Further, BM (CPTS) Rules also provide constitution of State, Division and District Level Mining Task Force for implementation of these rules and to monitor the excavation, trade and availability of minor minerals in the district. In addition to the above, District Level Mining Task Force should also:

1. ensure that all the mining activities were carried on as per the conditions of the mining leases.
2. ensure that no illegal mining, illegal transportation, over loading, hoarding and black marketing of minor minerals was carried on.
3. all the retail business of minor minerals were carried out as provided in these rules.
4. issue directions to any other Department to undertake such action as essential to achieve the objectives of the Act and Rules.
5. ensure that the mining activities were undertaken as per the environmental safeguards laid down by the MoEFCC.

Audit Findings

6.1 Non-adherence to the directives for prevention of illegal mining

Audit observed in 14 sampled DMOs that illegal mining/transportation/storage of minerals was continuously being reported during 2017-21. During this period, 32,426 raids were carried out by DMOs, in which, 41,289 vehicles were seized and 18,287 cases of overloading of minerals on vehicles were reported. Audit, when analysed the records relating to raids, found that records were not maintained to deduce out anything. Even the basic details like mineral type, vehicle details, driver details, location of raid *etc.* were not found in records. In absence of such details, Audit could not analyse and comment upon the same.

Audit further observed that total 4,608 FIRs were lodged and 4,423 people were arrested in respect of illegal mining of minerals. A total amount for ₹ 113.30 crore was recovered during 2017-21. This situation continued to prevail (September 2021) as reflected in the report of illegal mining for 1st quarter of 2021-22. However, as per details provided by these DMOs, only 175 meetings of task force were hold against 672 meetings required to be conducted during 2017-21. No joint inspection was carried out in three DMOs¹ during 2017-21. (**Appendix-24**). Further, as highlighted by GIS study in **Chapter-4**, illegal mining area had shown to been persistently increased in the mining areas.

These data show that illegal activities of mining were going on at large scale and directives/circulars of MGD were not being adhered to by the field offices for prevention of illegal mining of minerals.

On this being pointed out, the MGD stated that the State of Bihar had taken exemplary action against a large number of officials whose role in controlling illegal mining was found dubious. Bihar is the only state which complied with direction of the Hon'ble NGT for amendment in rules to increase the penalty amount.

The steps taken by the Department are appreciated, however, the reply is not tenable as only taking action against erring officials is not sufficient to prevent the illegal mining. The reports of illegal mining are self-explanatory that cases are continuously increasing in the State. The Sand Policy, 2013 envisages to levy only royalty for excess extraction of sand mineral which was not sufficient. This increases illegal extraction of minerals by the lessees.

Further, systems and controls mechanism for prevention of illegal mining such as installation of check posts at inter-state/district level were found insufficient in the State. There was lack of inter-departmental co-ordination, as cases of illegal mining were not transferred by Transport Department to the MGD and sufficient meetings of task force were not held as per norms and instructions.

¹ Bhagalpur, Nalanda and Siwan.

6.2 Loss of royalty due to non-co-ordination between District Transport Offices and District Mining Offices in context of seized vehicles involved in transportation of illegal minerals: ₹ 4.20 crore

As per section 4(i) of Bihar Minerals (Prevention of illegal mining, transportation and storage) Rules, 2003, where transportation of any mineral to any place, the holder of mining lease and the holder of a stock licence shall make an application in form A in duplicate to the competent office for issuing a transit pass. Further, as per Section 8(a) of Bihar Minerals (Prevention of illegal mining, transportation and storage) Rules, 2003, whoever contravenes the provisions of Sub rule (4), (5a) and (5c) of Rule 6 shall be punished by the competent court with imprisonment up to two years or with fine up to ₹ 10,000 along with price of the mineral and royalty with other taxes.

During scrutiny of records of seized vehicles by the Motor Vehicle Inspector and Enforcement Officer of sampled 14 DTOs, Audit observed that the enforcement unit seized 8,483 vehicles between April 2017 and February 2020 which were involved in the transportation of excess load resulting into illegal carriage of minerals (Sand, Stone chips and Stone dust). During test check of 2,482 out of 8,483 vehicles, Audit observed that the DTOs did not refer any of the cases to the district mining offices for their examination regarding the quantity and the source of the minerals. Besides, no documentary evidence *viz.* transit challans *etc.* were found along with the seizure list to ascertain the legality of mineral was checked by the seizing officer. It was also noticed that the DMOs of all 14 districts neither initiated action to co-ordinate with the transport office nor could collect detailed information in this regard even after the fact that both District Transport Officer and DMO were members of the task force at district level to prevent illegal mining. Audit further observed that the MGD had not issued any instruction to Transport Department regarding verification of challan of minerals during seizure of vehicles by the District Transport Enforcement Officer.

Therefore, non-co-ordination between two Departments resulted into loss of revenue in the shape of fine, royalty and penalty for ₹ 4.20 crore in test checked districts as detailed in **Appendix-25**.

On this being pointed out, the DMOs stated that action would be taken in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The MGD should establish a co-ordination mechanism with Transport Department so that the vehicles impounded by the Transport Department are referred to the MGD to have a check on illegal mining.

6.3 Loss due to illegal use of tractors registered for agricultural purposes in commercial activities : ₹ 12.77 crore

As per Sub Section (7) of Section 7 of the Bihar Motor Vehicle Taxation Act, 1994, the tractor and trailer used for transporting agricultural produce shall be clubbed together for the purposes of one-time tax to be levied at the rate of ₹ 3,000 per tractor-trailer in case the tractor was limited to 25 H.P. capacity and the capacity of the trailer does not exceed three tonne. The rate was ₹ 5,000 per tractor-trailer

in case where the tractor has more than 25 H.P. capacity and the capacity of the trailer did not exceed five tonne. Further, as per Sub section (8) of Section 7 of the Bihar Motor Vehicle Taxation Act, 1994, amendment in Bihar Finance Act, 2014 (effective from 19 September 2014), one-time tax for the lifetime of the vehicle was to be levied on tractor used or kept for use for other than agricultural purposes at the rate of 4.5 *per cent* of the cost of the vehicle excluding Value Added Tax (VAT).

During cross verification of data provided by the PMU cell of MGD, Patna and VAHAN data base in respect of 14 sampled districts, it was noticed that 2,27,563 number of mineral challans were issued to 4,830 tractors registered for use of agricultural purposes during the period of January 2018 and March 2020. This meant that these vehicles were being used for commercial activity of carrying minerals in the sampled districts. Owing to non-mapping of e-challan database with VAHAN database as well as lack of sharing of information among different offices, the above rules were not adhered to. The enforcement unit of DTO and MGD failed to stop the utilisation of agricultural registered vehicles into commercial activity. The MGD had no mechanism to prevent issue of mineral e-challan to these vehicles registered for agricultural purpose. This resulted into a loss of ₹ 12.77 crore in the shape of one-time tax of commercial tractors and permit fee as detailed in **Appendix-26**.

The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The MGD and Transport Department should integrate mining database with VAHAN, so that e-challans may be generated only to the vehicles registered for commercial purposes and any e-challan generated on non-commercial vehicles is flagged to the Transport Department automatically.

6.4 Loss of Government revenue due to non-imposition of fine to lessees for issue of e-challan beyond permissible limit to vehicle

Section 194 of MV Act provides that whoever drives a motor vehicle or causes or allows a motor vehicle to be driven in contravention of the provisions of Section 113 or Section 114 or Section 115 shall be punishable with fine of ₹ 20,000 and an additional amount of ₹ 2,000 per tonne of excess load together with the liability to pay charges for off-loading of the excess load.

During cross check of PMU database of e-challans provided by MGD and VAHAN database in respect of 14 sample districts, Audit observed that 17,03,104 e-challans were issued for which 85,436 vehicles were involved in transporting minerals. Quantities of minerals mentioned in above e-challans were excess of *ladan* capacity of vehicles involved in carrying minerals which was not permissible as per above provisions of MV Act. Audit further observed that no check for assessing *ladan* capacity of vehicles was available in e-challan software and it was not integrated with VAHAN database. In absence of this facility in software, 17,03,104 e-challans were generated with more than *ladan* capacity of vehicles violating the provisions of MV Act as detailed in **Appendix-27**.

The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The MGD and Transport Department should integrate mining database with VAHAN, so that e-challans are limited to the *ladan* capacity defined at the time of registration and any e-challan generated on excess capacity is flagged to the Transport Department automatically.

6.5 Transportation of minerals by unfit vehicles

As per Section 56 of Motor Vehicle Act, 1988, certificate of fitness of transport vehicles is subject to the provisions of Sections 59 and 60. A transport vehicle shall not be deemed to be validly registered for the purposes of Section 39, unless it carries a certificate of fitness in such form containing such particulars and information as may be prescribed by the Central Government, issued by the prescribed authority, or by an authorised testing station mentioned in sub-section (2), to the effect that the vehicle complies, for the time being, with all the requirements of this Act and the rules made there under. Further, as per conditions of environment clearance issued by the SEIAA, vehicles used to carry minerals must be having PUC certificate and fitness certificate.

During cross verification of PMU and VAHAN database in respect of 14 sampled districts, it was observed that 82,990 unfit vehicles were used for carrying of minerals through 18,13,797 e-challans during 2018 to 2020, as detailed in **Appendix-28**. This not only contravened the provisions of the Act but also affected the environment adversely.

The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendation: The Department should integrate its database with the VAHAN, so that the generation of e-challans on unfit and vehicles without PUC certificate, should be prevented and the conditions of environment clearance issued by SEIAA on carrying of minerals could be followed. Any e-challan generated on unfit vehicles should be flagged in the Transport database to identify the operating unfit vehicles.

6.6 Pendency of certificate cases

The BMMC Rules provide for recovery of the amount of rent, royalty, penalty as a public demand under the Bihar and Orissa Public Demands Recovery (PDR) Act, 1914. Further, as per Certificate Manual, the Requiring Officer (RO) and the Certificate Officer (CO) are jointly responsible for the speedy disposal of certificate cases².

Audit observed in the 13 DMOs³ that 20,700 certificate cases involving ₹ 229.43 crore were pending with these DMOs as of 31 March 2021. Of this, only 59 cases in these DMOs were disposed off during 2017-21 and recovery of ₹ 2.26 crore was made as given in the **Table-14** (District-wise details in **Appendix-29**) below:

² **Certificate case:** When the certificate officer, any Officer authorised by District Collector not below the rank of SDO is satisfied that any public demand payable to the Collector is due, he may sign a certificate in the prescribed form, stating that the demand is due and shall cause the certificate to be filed in his office.

³ Aurangabad, Banka, Bhagalpur, Bhojpur, Gaya, Kaimur, Nalanda, Nawada, Patna, Saran, Sheikhpura, Siwan and Vaishali.

Table-14

(₹ in crore)

Year	Opening balance		Certificate cases filed during the year		Certificate cases disposed off		Closing balance	
	No. of cases	Amount	No. of cases	Amount	No. of cases	Amount	No. of cases	Amount
2017-18	18,317	133.56	448	10.29	25	0.69	18,740	143.16
2018-19	18,740	143.16	809	39.42	20	0.74	19,529	181.84
2019-20	19,529	181.84	744	27.26	11	0.59	20,262	208.51
2020-21	20,262	208.51	441	21.16	03	0.24	20,700	229.43
Total			2,442	98.13	59	2.26		

Audit observed that for speedy disposal of certificate cases, the power of certificate officer⁴ was transferred (October 2016) to the concerned District Certificate Officer. Audit further observed that the Principal Secretary directed (February 2017) District Collectors to ensure quick disposal of certificate cases which includes holding of weekly meeting with DMOs in which reconciliation of register 'IX'⁵ and register 'X'⁶ could be done and to monitor intensively the cases of big defaulters by preparing a list of defaulters having arrears of more than ₹ 10 lakh, separately. However, Audit observed that the weekly meetings to reconcile the register 'IX' and 'X' were not held in any DMOs and the list of defaulters having arrears for more than ₹ 10 lakh was not prepared.

On this being pointed out, the DMOs stated that letter had been sent to Certificate Officer and action would be taken in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

6.7 Manpower Management

One of major control mechanism for having a check on illegal mining is through inspections by Mining officials and it is necessary that there are enough officers for operations, monitoring and administering the relevant mining activities with the assistance of allied staff. Therefore, the deployment of manpower in accordance with the sanctioned strength of the respective departments is not only important for efficient performance of an organisation but also a necessity for prevention of illegal mining and ensuring effective recovery of the arrears of revenue. The cadre-wise sanctioned strength and men-in-position of the Department (2017-18 to 2020-21) are detailed in the **Table-15** below:

⁴ Before October 2016, the DDM of concerned region was the Certificate Officer and was responsible to dispose the pending certificate cases.

⁵ A register of requisitions maintained by the requiring officer.

⁶ A register of certificate kept up by the certificate officer.

Table: 15

Name of post	2017-18			2018-19			2019-20			2020-21		
	Sanctioned strength	Men in position	Shortage (Percentage)	Sanctioned strength	Men in position	Shortage (Percentage)	Sanctioned strength	Men in position	Shortage (Percentage)	Sanctioned strength	Men in position	Shortage (Percentage)
DDM	08	01	07 (87.50)	08	01	07 (87.50)	11	01	10 (90.90)	11	00	11 (100.00)
ADM	11	03	08 (72.73)	11	02	09 (81.82)	15	01	14 (93.33)	15	01	14 (93.33)
MDO	25	25	0 (0)	25	18	07 (28.00)	46	18	28 (60.87)	46	16	30 (65.22)
Mines Inspector	38	35*	34 (89.47)	38	04	34 (89.47)	104	03	101 (97.11)	104	02	102 (98.08)
Head Clerk	23	00	23 (100.00)	23	00	23 (100.00)	23	00	23 (100.00)	107	52	55 (51.40)
Clerk	76	60	16 (21.05)	76	59	17 (22.37)	76	59	17 (22.37)			

* 32 Co-operative extension officers from other departments were deputed as Mines Inspector

It is evident from the above that the shortages in all cadres were increased over the years. The vacancies in Assistant Director of Mines (ADM), Mines Inspector (MI) and Mineral Development Officer (MDO), who are mainly responsible for operational efficiency as well controlling illegal mining in their respective areas, of the Department was notably high. The huge vacancies in the cadres of ADM, MI, MDO and DDM were adversely affecting the collection of the revenue and checking of illegal mining in the State as detailed in preceding paragraphs. There was 100 per cent shortage of Head Clerk (till 2019-20) in the Department. Even though the Audit had pointed out this issue in previous Audit Reports, the Department had not filled up the vacancies as per sanction strength.

This had resulted into lack of monitoring of illegal mining as observed from the paragraphs in **Chapter-4**, illegal mining reported continuously and in safeguarding revenues of the State through proper assessments in levy and collection of revenue and settlement of all mining lease within stipulated period.

On this being pointed out, the concerned DMOs stated that request letter had been sent to the Department. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Recommendations: The Department should take necessary steps to fill up the critical posts urgently and execute its powers through officers and setup a technical cell at the departmental level to monitor extractions through GIS studies and analyse the mining database from time to time.

6.8 Inadequate inspections

The departmental inspections play a vital role in ensuring proper functioning of the organisation. It is the duty of the Mines Inspector (MI) to inspect the area of brick kilns and mining lease on quarterly basis for physical verification of return of

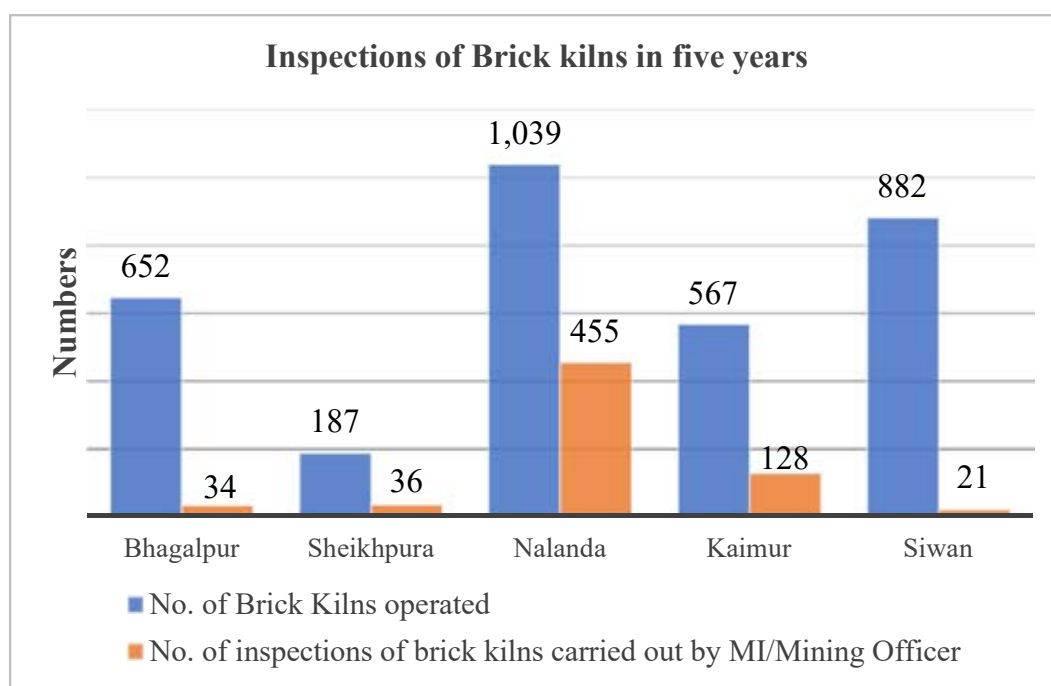
extraction. It is responsibility of every DMO to inspect the mining lease area once in a year. Further, DDM must inspect the mining office once in a year.

Records related to inspections of brick kilns, sand leases and stone quarries and inspections of Mining Offices by DDM were provided by only five DMOs⁷. The deficiencies noticed during scrutiny of records related to inspection as provided by these DMOs for the period 2017-18 to 2020-21 are discussed in succeeding paragraphs.

6.8.1 Non-verification/inspection of brick kilns, sand *ghats* and stone quarries

Chart-12 below highlights inspections carried out by the Mining Officers with respect to operations of Brick kilns in five districts.

Chart-12



(Source: Information provided by DMOs)

Total 63 inspections of stone quarries were carried out by the Mines Inspectors in Sheikhpura during 2017-2021 and no document related to inspection of sand *ghats* of Bhagalpur, Nalanda, Kaimur and Siwan were found in sand lease files. Inspection of mining lease areas was required to be carried out at regular intervals as this acts as an important control mechanism for controlling illegal mining. In the absence of such regular inspections of lease areas, the activities of illegal mining increased in lease areas as noticed in the paragraphs in **Chapter-4**.

On this being pointed out, the DMOs stated that action would be taken in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

⁷ **Brick kilns:** Bhagalpur, Kaimur, Nalanda, Siwan and Sheikhpura; **Sand:** Bhagalpur, Kaimur, Nalanda and Siwan; **Stone:** Sheikhpura.

6.8.2 Inspections by Departmental Officers

During scrutiny of records related to inspections by higher officials, Audit noticed that all five DMOs were not inspected by the DDM during 2017-18 to 2020-21. Details are in the **Table-16** below :

Table-16

Name of DMO	Inspection(s) conducted by DDM during 2017-18 to 2020-21
Bhagalpur	Nil
Kaimur	Nil
Nalanda	Nil
Sheikhpura	Nil
Siwan	Nil

Lack of proper inspections by higher authorities of the Department resulted in inadequate monitoring of the functioning of the subordinate offices. Records related to inspections were not made available to Audit in the remaining nine districts. Had the inspections been done for all the mines, the full quantum of deficiencies would have come to the notice of the Department, enabling the Department to control irregular mining activities or ensure proper assessments and collection of revenue.

On this being pointed out, the DMOs stated that action would be taken in this regard. The matter was reported to the Department (April 2022); their reply was awaited (May 2022).

Chapter-7

Conclusion and Recommendations

Chapter-7

Conclusion and Recommendations

7.1 Conclusion

This Performance Audit on “Systems and Controls in assessment and collection of mineral receipts” revealed several shortcomings and deficiencies. The Mines and Geology Department (MGD) had not prepared District Survey Report (DSR) for any district of the State, resulting into non-settlement of mining areas for 2020-24. There were instances of delayed/non-deposit of settlement amount/DMF Fund/Professional Tax *etc.* and non-realisation of interest thereon. Non-settlement/execution of mining leases were also observed in selected districts. Progressive Mining Closure was not being done and planning a Final Mining Closure Plan just one year prior to proposed closure entailed a high risk of default.

The monitoring of mining activities by the MGD was very poor and Geo-coordinates of the sand *ghats* were approved without field verification. The MGD had not used modern technologies like satellite imageries to detect the illegalities. Geo-spatial studies of the sand *ghats* with the help of NIT, Patna, (expert agency) revealed extensive illegal mining being carried out beyond the approved Mining Plan area.

The penalty provision for excess extraction of mineral by lessees under Sand Mining Policy, 2013 was only additional amount of royalty, which was too meagre, in comparison to the value of minerals as well as mining policy of other states. Hence, deterrent provision of penal action, laid down in policy remained ineffective.

Analysis of Project Monitoring Unit and *VAHAN* database for sampled districts revealed that due to lack of inter-departmental co-ordination between Transport Department and MGD, there were instances where minerals were being transported on vehicles such as ambulance, tractor registered for agricultural purpose, bus, motorcycle, motorcar *etc.* In some cases, large number of e-challans were generated for one vehicle in a day. Scrutiny of e-challans from different works divisions revealed that a large number of fake e-challans were used in works divisions. There were instances, where no fines were imposed on lessees for issuing e-challans beyond permissible limits.

7.2 Recommendations

The MGD should prepare the District Survey Report of each mineral in every district separately in the light of SSMMG, 2016. The MGD should ensure that EC must be obtained before carrying out any mining activity and extension of mining lease for the safeguard of environment as per EIA notification.

The Mining Plan of any mining lease should be properly verified by the competent authority. A technical cell should be established for carrying out Geo-spatial study from time to time, to ensure that mining is being carried out as per the

approved plans and any deviation from the same could be reported and suitable action may be taken against illegal miners. The MGD should make functional, important modules like Geo-fencing, Radio Frequency Identification (RFID) Tags and Global Positioning System (GPS) so that the route of vehicle from source to destination can be tracked through the system using check points, tracking.

The Department should develop mechanism for verification of quantity of minerals extracted before despatch and ensure adequate inspection/verification of limestone lease area by the Mining Office.

The MGD should establish a co-ordination mechanism with Transport Department so that the vehicles impounded by the Transport Department, are referred to the Mining Department to have a check on illegal mining.

The Mines & Geology Department should integrate its database with the *VAHAN* database to prevent the generation of e-challans on unrealistic vehicles. Also, if any e-challan is generated on non-commercial vehicle, the same should be flagged to the Transport Department automatically.

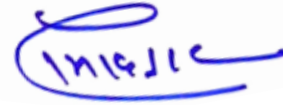
A comprehensive IT solution should be developed in which all receipts *i.e.* realisation of Royalty, DMF Fund, Security Deposit, Stamp Duty and Registration Fee should be reflected and any non-payment, short or delay payment thereof should be flagged and therefore, corrective measures could be taken in a timely manner.

The MGD should develop co-ordination mechanism with works divisions and Departments on regular basis, to ensure that the authenticity of e-challans is being regularly checked in works divisions so that the loss of royalty and misuse of e-challans could be avoided. The Department should investigate upon the matter regarding availability of fake verification letters from mining offices and fix responsibility on erring officials.

The Department may ensure adherence of District Mineral Foundation Guidelines and appoint CA to audit DMF accounts.

The Department should integrate its database with the *VAHAN*, so that the generation of e-challans on unfit and vehicles without PUC certificate, could be prevented and the conditions of environment clearance issued by SEIAA on carrying of minerals could be followed. Any e-challan generated on unfit and vehicles without PUC certificate should be flagged in the transport database to identify the operating unfit vehicles.

The Department should take necessary steps to fill up the critical posts urgently and execute its power through its officers and setup a technical cell at the departmental level to monitor the extractions through GIS studies and analyse the Mining database from time to time.



Patna
The 27 September 2022

(RAMAWATAR SHARMA)
Accountant General (Audit), Bihar

Countersigned



New Delhi
The 30 September 2022

(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India

Appendices

Appendix-1
(Refer Paragraph: 3.3)
Non-levy of interest on delayed payment on settlement of sand ghats

Calendar year	Name of district	Name of lessees	Amount of instalment payable	Amount of instalment paid	Delay payment of instalment (in days)	Amount outstanding	Amount retained for No. of days	Interest due at the rate of 24 per cent per annum	Interest paid by lessee	Total interest to be realised
2020	Patna	M/s Broadson Commodities PVT. Ltd.	48,13,37,008	48,13,37,008	1-194	53,92,86,781	1-161	1,79,50,830	0	1,79,50,830
2016	Kaimur	M/s Champian Group of Company	1,90,21,200	1,90,21,200	7-214	2,05,83,837	1-130	3,98,936	0	3,98,936
2017			2,28,25,440	2,28,38,823		4,94,24,339		14,70,382	1,84,000	12,86,382
2018			2,73,90,528	2,74,67,632		13,38,15,280		22,07,566	0	22,07,566
2019			3,28,68,635	3,28,68,636		15,61,42,714		19,63,693	0	19,63,693
2016-19	Kaimur	M/s Champian Group of Company	10,21,05,803	10,21,96,291	7-214		1-130	60,40,577	1,84,000	58,56,577
2017	Aurangabad	Aditya Multicon Pvt. Ltd.	17,73,79,776	17,73,79,780	1-225	38,21,39,328	1-114	54,25,400	53,21,394	1,04,006
2018			63,85,67,193	63,85,67,194		3,64,78,16,198		2,41,50,542	42,18,985	1,99,31,557
2019-20			1,03,32,22,666	1,03,32,22,654		3,72,14,16,484		4,02,59,310	0	4,02,59,310
2021			38,31,40,320	38,31,40,320		88,88,41,920		4,31,147	3,16,062	1,15,085
2017-21	Aurangabad	Aditya Multicon Pvt. Ltd.	2,23,23,09,955	2,23,23,09,948	1-225		1-114	7,02,66,399	98,56,441	6,04,09,958

(Amount in ₹)

(Amount in ₹)

Calendar year	Name of district	Name of lessees	Amount of instalment payable	Amount of instalment paid	Delay payment of instalment (in days)	Amount outstanding	Amount retained for No. of days	Interest due at the rate of 24 per cent per annum	Interest paid by lessee	Total interest to be realised
2017	Banka	Mahadeva Envlaive Pvt. Ltd.	23,69,30,400	23,69,30,400	1-167	1,49,81,60,800	1-110	11,53,965	55,12,772	1,31,92,453
2018			28,43,16,480	28,43,16,480		1,51,37,47,200		94,80,129		
2019			24,74,95,604	24,74,95,605		75,48,46,363		9,53,549		
2020			31,78,75,147	31,78,75,147		1,44,30,01,176		41,94,621		
2021			34,49,18,733	34,49,18,475		1,85,95,49,063		29,22,961		
2017-21	Banka	Mahadeva Envlaive Pvt. Ltd.	1,43,15,36,364	1,43,15,36,107	1-167		1-110	1,87,05,225	55,12,772	1,31,92,453
2020	Nawada	Jay Mata Di Enterprises	4,96,36,844	4,96,36,845	1-2	4,96,36,845	1-2	32,638	0	1,12,471
2021			6,07,06,486	6,07,06,486		6,07,06,486		79,833		
2020-21	Nawada	Jay Mata Di Enterprises	11,03,43,330	11,03,43,331	1-2		1-2	1,12,471	0	1,12,471
2020	Gaya	Westlink Pvt. Ltd.	44,03,63,803	44,03,63,803	1-69		1-50	45,02,237	0	45,02,237
2020	Saran	Broadson Commodities	2,10,58,058	2,10,58,061	1-8	2,11,14,421	1-8	32,357	0	32,357
2021			3,02,45,376	3,02,45,376		3,02,45,376		72,920		
2020-21	Saran	Broadson Commodities	5,13,03,434	5,13,03,437	1-8		1-8	1,05,278	0	1,05,278
Grand Total			4,84,92,99,697	4,84,93,89,925	1-225		1-161	11,76,83,017	1,55,53,213	10,21,29,804

Appendix-2
(Refer Paragraph: 3.4)
Non-realisation of security deposit for the settlement of extended period of sand ghats

Sl. No.	Name of DMO	Settlement extended up to	Settlement period	Proportionate settlement amount	Total security deposit	Security deposit paid	Security deposit due
1	Aurangabad	9/2021	2020	1,35,25,06,254	13,52,50,625	Nil	
			Up to 9/2021	1,72,41,31,440	17,24,13,144	Nil	17,24,13,144
2	Banka	12/2021	2020	60,38,41,467	6,03,84,147	Nil	
			2021	1,02,14,36,165	10,21,43,617	Nil	10,21,43,617
3	Bhojpur	9/2021	2020	1,96,87,68,512	19,68,76,851	Nil	
			Up to 9/2021	2,49,60,08,469	24,96,00,847	Nil	24,96,00,847
4	Nawada	12/2021	2020	21,08,40,807	2,10,84,080	Nil	
			2021	35,73,84,984	3,57,38,498	Nil	3,57,38,498
5	Patna	9/2021	2020	1,13,27,63,961	11,32,76,396	Nil	
			Up to 9/2021	1,43,61,20,256	14,36,12,025	Nil	14,36,12,025
6	Rohtas	9/2021	2020	1,80,36,47,871	18,03,64,787	Nil	
			Up to 9/2021	2,29,29,50,178	22,92,95,018	Nil	22,92,95,018
7	Saran	9/2021	2020	7,23,64,859	72,36,486	Nil	
			Up to 9/2021	9,19,96,348	91,99,635	Nil	91,99,635
8	Vaishali	12/2021	2020	4,57,76,677	45,77,668	Nil	
			2021	7,73,81,231	77,38,123	Nil	77,38,123
Grand Total					1,66,87,91,948	Nil	94,97,40,907

Appendix-3
(Refer Paragraph: 3.5)

(a) Non-realisation of Stamp Duty and Registration Fee due to non-execution of registered deed for settled sand ghats during 2020 to 2021

(Amount in ₹)										
Sl. No.	Name of DMO	Settlement period	Settlement amount	Stamp Duty leviable	Registration Fee leviable	Stamp Duty paid	Registration Fee paid	Stamp Duty due	Registration Fee due	Total SD and RF due
1.	Gaya	01.01.2020 to 31.12.2020	65,49,73,545	3,92,98,413	1,30,99,471	0	0	3,92,98,413	1,30,99,471	5,23,97,884
2.	Nawada	01.01.2020 to 31.12.2020	23,89,09,398	1,43,34,564	47,78,188	0	0	1,43,34,564	47,78,188	1,91,12,752
		01.01.2021 to 31.12.2021	35,83,64,097	2,15,01,846	71,67,282	0	0	2,15,01,846	71,67,282	2,86,69,128
3.	Patna	01.04.2021 to 30.09.2021	96,26,74,017	5,77,60,441	1,92,53,480	0	0	5,77,60,441	1,92,53,480	7,70,13,921
4.	Bhojpur	01.01.2021 to 31.03.2021	82,28,59,965	4,93,71,598	1,64,57,199	4,92,37,799	1,64,12,833	1,33,799	44,366	1,78,165
		01.04.2021 to 30.09.2021	1,67,31,48,504	10,03,88,909	3,34,62,970	0	0	10,03,88,909	3,34,62,970	13,38,51,879
5.	Rohtas	2020	2,04,37,61,984	12,26,25,719	4,08,75,240	0	0	12,26,25,719	4,08,75,240	16,35,00,959
		01.01.2021 to 30.09.2021	2,29,29,50,178	13,75,77,011	4,58,59,004	0	0	13,75,77,011	4,58,59,004	18,34,36,015
6.	Vaishali	01.01.2020 to 31.12.2020	5,18,70,786	31,12,247	10,37,416	27,46,593	0	3,65,654	10,37,416	14,03,070
		01.01.2021 to 31.12.2021	7,78,06,179	46,68,371	15,56,123	0	0	46,68,371	15,56,123	62,24,495
7.	Aurangabad	01.01.2020 to 31.12.2020	1,53,67,60,063	9,22,05,604	3,07,35,201	0	0	9,22,05,604	3,07,35,201	12,29,40,805
		01.01.2021 to 30.09.2021	1,72,41,31,440	10,34,47,886	3,44,82,629	0	0	10,34,47,886	3,44,82,629	13,79,30,515
		Total	12,43,82,10,156	74,62,92,609	24,87,64,203	5,19,84,392	1,64,12,833	69,43,08,217	23,23,51,370	92,66,59,588

(b) Non-realisation of Stamp Duty and Registration Fee due to non-execution of registered deed for settled sand ghats during 2017 to 2019

(Amount in ₹)

Sl.No.	Name of DMO	Settlement period	Settlement amount	Stamp Duty leviable	Registration Fee leviable	Stamp Duty paid	Registration Fee paid	Stamp Duty due	Registration Fee due	Total SD and RF due
1.	Rohtas	2017	94,36,00,896	5,66,16,054	1,88,72,018	5,66,16,054	0	0	1,88,72,018	1,88,72,018
		2018	1,13,23,21,075	6,79,39,265	2,26,46,422	6,79,39,265	0	0	2,26,46,422	2,26,46,422
2.	Kaimur	2017	2,28,25,440	13,69,526	4,56,509	6,84,764	0	6,84,762	4,56,509	11,41,271
		2018	2,73,90,528	16,43,432	5,47,811	0	0	16,43,432	5,47,811	21,91,243
		2019	3,28,68,634	19,72,118	6,57,373	0	0	19,72,118	6,57,373	26,29,491
	Total		2,15,90,06,573	12,95,40,395	4,31,80,133	12,52,40,083	0	43,00,312	4,31,80,133	4,74,80,445

Appendix-4
(Refer Paragraph: 3.6)
Loss of Government revenue due to non-revalidation of bank guarantee in place of Stamp Duty and Registration Fee submitted by lessees of sand ghats

(Amount in ₹)

Name of DMO	Year	Lease amount	Applicable Stamp Duty and RF (SD at the rate of 6 per cent and RF at the rate of 2 per cent)	SD & RF paid (6+2 per cent on 5 per cent of settlement amount)	Amount of bank guarantee deposited by lessee	BG No./ Date	Bank name and address	Validity	Remarks
1	2	3	4	5	6	7	8	9	10
Banka	2017	31,59,07,200	2,52,72,576	12,64,230	2,40,08,946	OBC/17-307580 dated 18.08.2018	Oriental Bank of Commerce, MSME Cluster, Sri ganga Nagar, Rajasthan	31.12.2019	Not revalidated
	2018	37,90,88,640	3,03,27,091	15,17,856	2,88,10,737	OBC/17-307582 dated 01.09.2018		31.12.2019	Not revalidated
	2019	45,49,06,368	3,63,92,509	18,21,218	3,45,72,932	BG-0036-BG0002-19 dated 26.08.2019	Punjab & Sindh Bank, 22-Public Park, Sri Ganga Nagar, Rajasthan	31.12.2019	Not revalidated
Total		1,14,99,02,208	9,19,92,176	46,03,304	8,73,92,615				
Nalanda	2017	8,53,77,600	68,30,208	3,53,070	64,88,720	OBC/307512/dated 05.05.2018	Oriental Bank of Commerce, MSME Cluster, Sri ganga Nagar, Rajasthan	31.12.2019	Not revalidated
	2018	10,24,53,120	81,96,250	4,21,390	77,86,450	OBC/307511/dated 05.05.2018		31.12.2019	Not revalidated
	2019	12,29,43,744	98,35,500	5,01,300	93,43,725	OBC/221132/dated 27.06.2019		31.12.2019	Not revalidated
Sub Total		31,07,74,464	2,48,61,958	12,75,760	2,36,18,895				
Grand Total		1,46,06,76,672	11,68,54,134	58,79,064	11,10,11,510				

Appendix-5
(Refer Paragraph: 3.8.4)
Non-realisation of settlement amount and interest from lessees of stone quarries by DMO, Sheikhpura

Sl. No.	Name of lessee (Block No.)	Particulars	Amount to be paid	Amount paid	Delay in days	Interest to be paid	Interest paid	Interest due	Total due=interest+ remaining instalment
1.	M.G. Contractors Pvt. Ltd. (Block No.16)	3 rd instalment	3,00,20,000	3,00,20,000	0-13	1,28,390	1,18,514	9,876	9,876
2.	Katyayni Contractors Pvt. Ltd. (Block No.18)	3 rd to 5 th instalment	7,25,00,000	7,25,00,000	5-146	22,29,051	21,94,693	34,358	34,358
3.	Navyuga Engg. Company Ltd. (Block No.03)	2 nd to 5 th instalment	10,67,50,000	10,67,50,000	1-175	44,72,512	44,01,039	71,473	71,473
4.	Navyuga Engg. Company Ltd. (Block No.08)	2 nd to 5 th instalment	12,28,50,000	12,28,50,000	1-67	38,82,831	33,49,597	5,33,234	5,33,234
5.	M/s Arina Food and Agro Industries Pvt. Ltd. (Block No.04)	2 nd to 5 th instalment	20,30,00,000	19,04,82,689	1-99	2,60,88,196	2,84,54,602	0	1,01,50,905
6.	Shri Aman Sethi (Block No.06)	2 nd to 5 th instalment	10,36,00,000	10,36,00,000	1-152	28,15,028	26,92,209	1,22,819	1,22,819
Grand Total			63,87,20,000	62,62,02,689		3,96,16,008	4,12,10,654	7,71,760	1,09,22,665

Appendix- 6
Illegal removal of brick earth without valid permit and without submission of CTE/CTO and Environment Clearance Certificate
(Refer Paragraph: 3.13.1)

District Mining Office	Brick season	Total No. of brick kilns	No. of permit issued	Brick kilns operating without valid permit	No. of brick kilns operating without submission of CTE/CTO	No. of brick kilns operating without submission of EC
DMOs of 13 districts ¹	2017-18	2,527	254	2,273	1,369	1,136
	2018-19	2,585	219	2,366	1,394	1,118
	2019-20	2,524	109	2,415	1,220	1,082
	2020-21	2,633	197	2,436	1,441	785
Grand Total		10,269	779	9,490	5,424	4,121

¹ Aurangabad, Banka, Bhagalpur, Bhojpur, Kaimur, Nalanda, Nawada, Patna, Rohtas, Saran, Sheikhpura, Siwan and Vaishali.

Appendix-7
(Refer Paragraph: 3.13.2)
Non/short realisation of royalty and penalty from brick kiln owners

Name of District	Brick season	Total No. of brick kilns	No. of Permit issued	Brick kilns operating without valid permit	No. of brick kilns operating without/short payment of royalty	Total Royalty and Application fee payable from brick kilns operating without/short payment of royalty	Royalty and Application fee paid by brick kiln owners in col. 6	Royalty due	Total penalty leviable	Penalty levied	Penalty due
1	2	3	4	5	6	7	8	9	10	11	12
14 districts²	2017-18	2,973	254	2,719	761	5,55,48,550	21,89,585	5,33,58,965	8,87,54,950	0	8,87,54,950
	2018-19	3,029	278	2,751	666	5,15,26,550	18,92,325	4,96,34,225	7,76,96,200	0	7,76,96,200
	2019-20	2,970	113	2,857	811	19,18,37,625	1,10,05,523	18,08,32,102	0	0	0
	2020-21	3,103	197	2,906	688	16,28,64,875	23,20,312	16,05,44,563	0	0	0
Grand Total		12,075	842	11,233	2926	46,17,77,600	1,74,07,745	44,43,69,855	16,64,51,150	0	16,64,51,150

² Aurangabad, Banka, Bhagalpur, Bhojpur, Gaya, Kaimur, Nalanda, Nawada, Patna, Rohtas, Saran, Sheikhpura, Siwan and Vaishali.

Appendix-8
(Refer Paragraph: 4.1 & 4.2)
Actual mining area in the sampled ghats

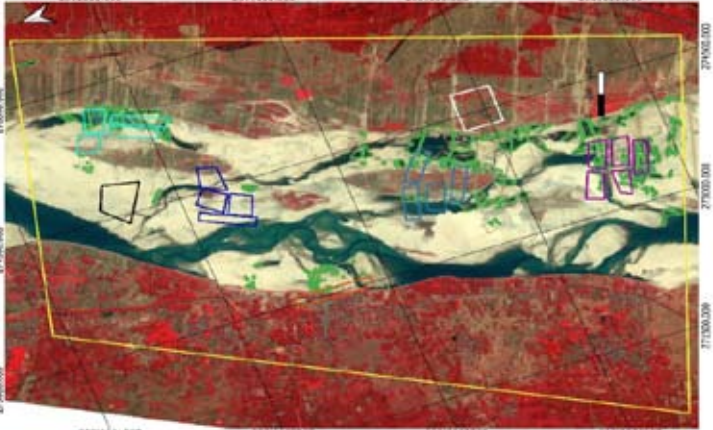
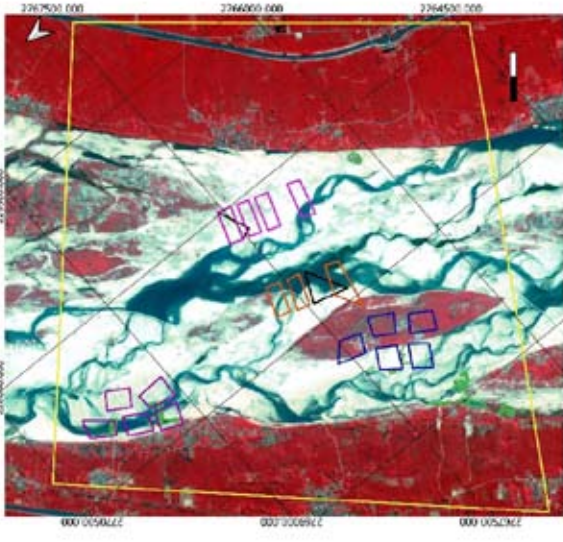
Image Date	Area of Interest-I	Area of Interest-II	Area of Interest-III
November 2018	 Legend for Area of Interest-I: - ANANDPUR GHAT - RS 2 LSS IV 5.8 m dated 04-11-2018 - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN - Kalsimar Ghats - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN - Haripur & Sidiskhupur Ghats - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN - Mahul Ghats 1 to 5 - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN - Techapur Ghats - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN	 Legend for Area of Interest-II: - Chikhand Ghats - RS 2 LSS IV 5.8 m dated 04-11-2018 - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN - Mahapur & Mahul Ghats - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN - Haripur & Mahul Ghats - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN - Haripur & Mahul Ghats - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN	 Legend for Area of Interest-III: - Dabra A Ghats 2 to 5 - RS 2 LSS IV 5.8 m dated 04-11-2018 - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN - Dabra B Ghats - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN - Dabra C Ghats - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN - Dabra D Ghats - Area of Interest - Sand Mining Area - Band 1 RED - Band 2 RED - Band 3 GREEN

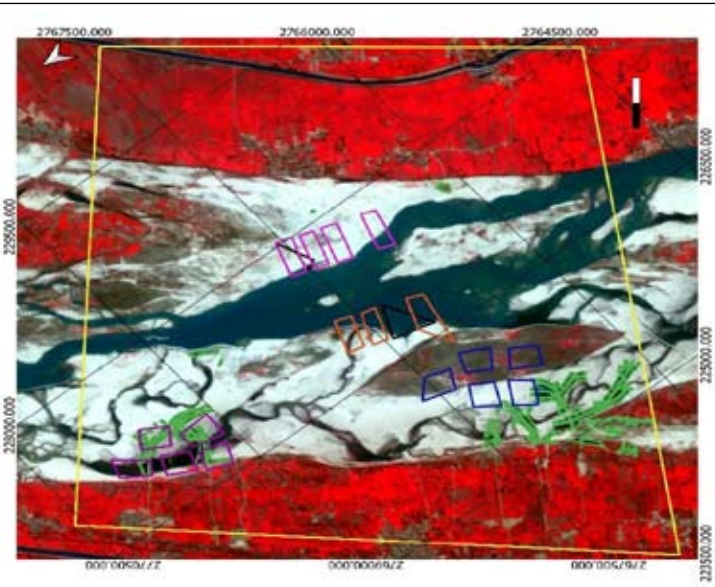
Image Date	Area of Interest-I	Area of Interest-II	Area of Interest-III
February 2019	 Legend for Area of Interest-I: - ANANDPUR GHAT - Amnabad Ghat 1 to 5 - Harpur & Sotas-inpar Ghat - Mahal Ghat 1 to 5 - Teohpur Ghat - Kalsar Ghat - Area of Interest - Sand Mined area, dated 20-02-2019 - Band 1 NIR - Band 2 RED - Band 3 GREEN	 Legend for Area of Interest-II: - Chikhus Ghat - Jaldun A to E Ghat - Kals A to B Ghat - Meerpura A to D Ghat - Rani Talab Ghat - Sandesh Ghat - Sarnah A B D E Ghat - Area of Interest - Sand Mined Area, dated 20-02-2019 - Band 1 NIR - Band 2 RED - Band 3 GREEN	 Legend for Area of Interest-III: - Odra A Ghat 2 to 5 - Odra B2 B4 B5 Ghat - Parahar Ghat 1 to 5 - Parahar2 Ghat A to E - Odra B1 B3 Ghat - Area of Interest - RS 2 LSS IV 5.8 m - Sand Mined Area, dated 20-02-2019 - Band 1 NIR - Band 2 RED - Band 3 GREEN

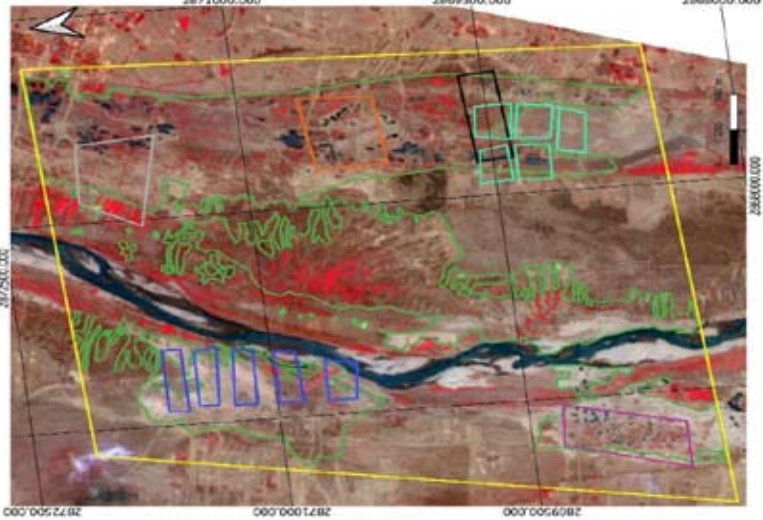
Image Date	Area of Interest-I	Area of Interest-II	Area of Interest-III
June 2019	 Legend for Area of Interest-I: - ANANDPUR GHAT - Kalsay Ghat - Area of Interest - Sand Mined Area - Anandpur Ghat 1 to 5 - Harpur & Sardeshpur Ghat - Mahuli Ghat 1 to 5 - Tekhaur Ghat - RS 2 LISS IV 5.8 m dated 01-05-2019 - RS 2 LISS IV 5.8 m dated 01-06-2019 - Band 1 NIR - Band 2 RED - Band 3 GREEN	 Legend for Area of Interest-II: - Chalkas Ghat - Kalsay Ghat - Area of Interest - Sand Mined Area - Kalsay Ghat 1 to 5 - Kalsay A to E Ghat - Kalsay B to D Ghat - Kalsay C to F Ghat - Kalsay D to G Ghat - Kalsay E to H Ghat - Kalsay F to I Ghat - Kalsay G to J Ghat - Kalsay H to K Ghat - Kalsay I to L Ghat - Kalsay J to M Ghat - Kalsay K to N Ghat - Kalsay L to O Ghat - Kalsay M to P Ghat - Kalsay N to Q Ghat - Kalsay O to R Ghat - Kalsay P to S Ghat - Kalsay Q to T Ghat - Kalsay R to U Ghat - Kalsay S to V Ghat - Kalsay T to W Ghat - Kalsay U to X Ghat - Kalsay V to Y Ghat - Kalsay W to Z Ghat - RS 2 LISS IV 5.8 m dated 01-06-2019 - RS 2 LISS IV 5.8 m dated 01-06-2019 - Band 1 NIR - Band 2 RED - Band 3 GREEN	 Legend for Area of Interest-III: - Dohra A Ghat 2 to 5 - Dohra B1 B4 B5 Ghat - Sand Mined Area - Dohra Ghat 1 to 5 - Dohra Ghat A to E - Dohra B1 B3 Ghat - Dohra A - Dohra B - Dohra C - Dohra D - Dohra E - Dohra F - Dohra G - Dohra H - Dohra I - Dohra J - Dohra K - Dohra L - Dohra M - Dohra N - Dohra O - Dohra P - Dohra Q - Dohra R - Dohra S - Dohra T - Dohra U - Dohra V - Dohra W - Dohra X - Dohra Y - Dohra Z - RS 2 LISS IV 5.8 m dated 01-06-2019 - RS 2 LISS IV 5.8 m dated 01-06-2019 - Band 1 NIR - Band 2 RED - Band 3 GREEN

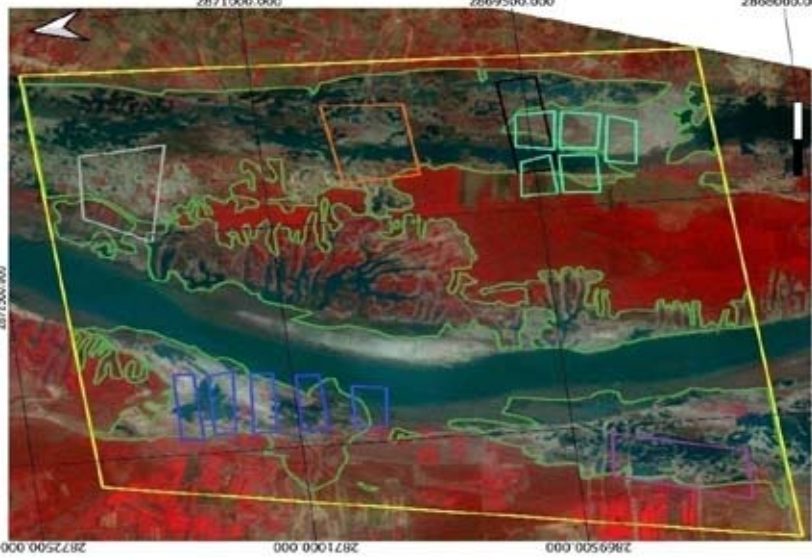
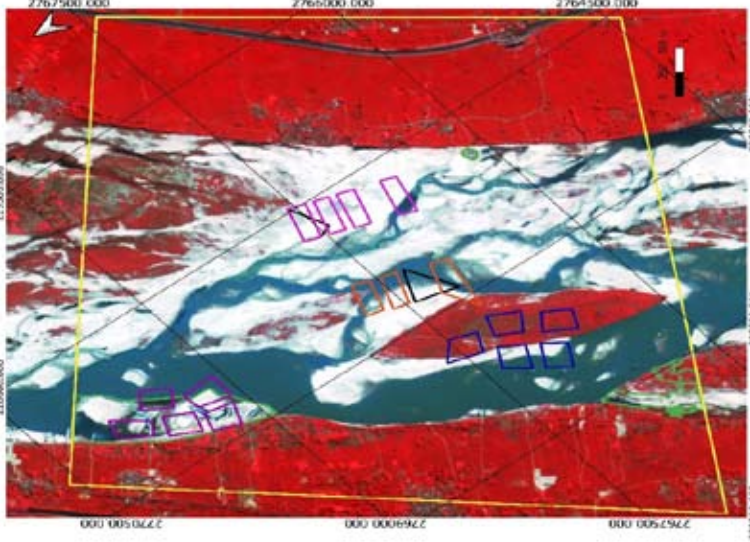
Image Date	Area of Interest-I	Area of Interest-II	Area of Interest-III
November 2019	 Legend for Area of Interest-I: - ANANDPUR GHAT - Arnebad Ghat 1 to 5 - Hanpur & Solashpur Ghat - Mahat Ghat 1 to 5 - Tolhapur Ghat - Katoar Ghat - Area of Interest - Sand Mined area, dated 23-11-2019 - RS 2 LISS IV 5.8 m dated 23-11-2019 - Band 1 NIR - Band 2 RED - Band 3 GREEN	 Legend for Area of Interest-II: - Chithaur Ghat - Jajpura A to E Ghat - KGB A to B GHAT - Narsipura A to D Ghat - Rani Talab Ghat - Sundar Ghat - Saraya A B D E Ghat - Area of Interest - Sand Mined Area, dated 23-11-2019 - RS 2 LISS IV 5.8 m dated 23-11-2019 - Band 1 NIR - Band 2 RED - Band 3 GREEN	 Legend for Area of Interest-III: - Dharma A Ghat 2 to 5 - Dharma B2 B4 B5 Ghat - Dharma C1 to 5 - Dharma D1 B3 Ghat - Area of Interest - Sand Mined Area, dated 11-11-2019 - RS 2 LISS IV 5.8 m dated 11-11-2019 - Band 1 NIR - Band 2 RED - Band 3 GREEN

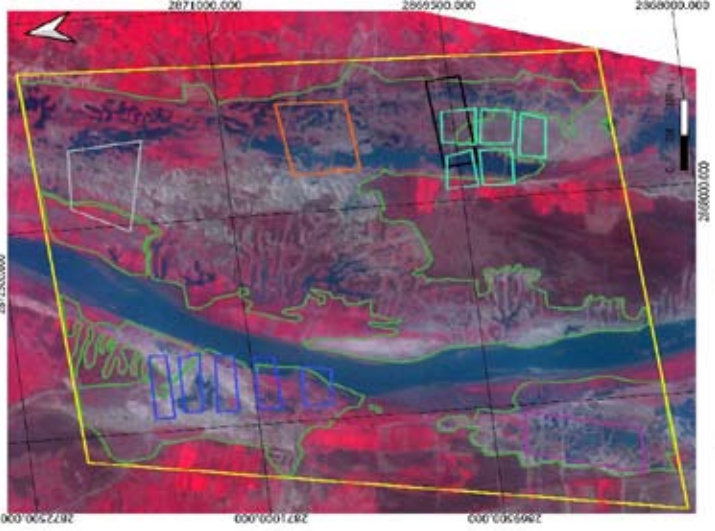
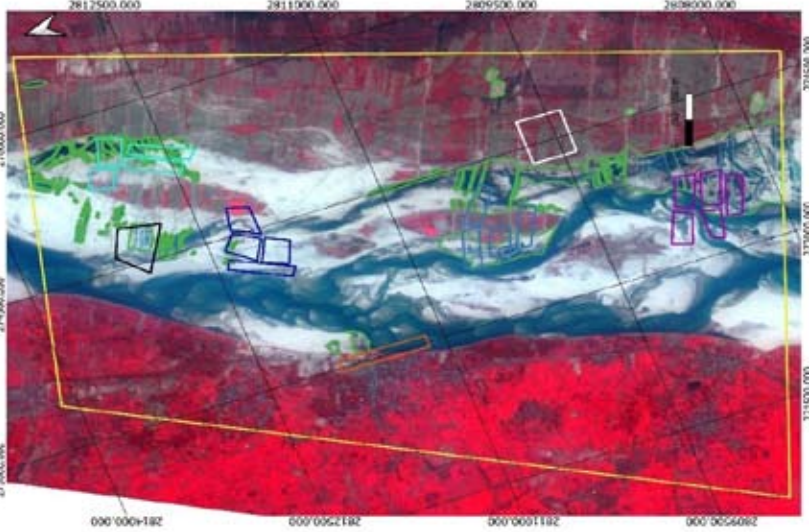
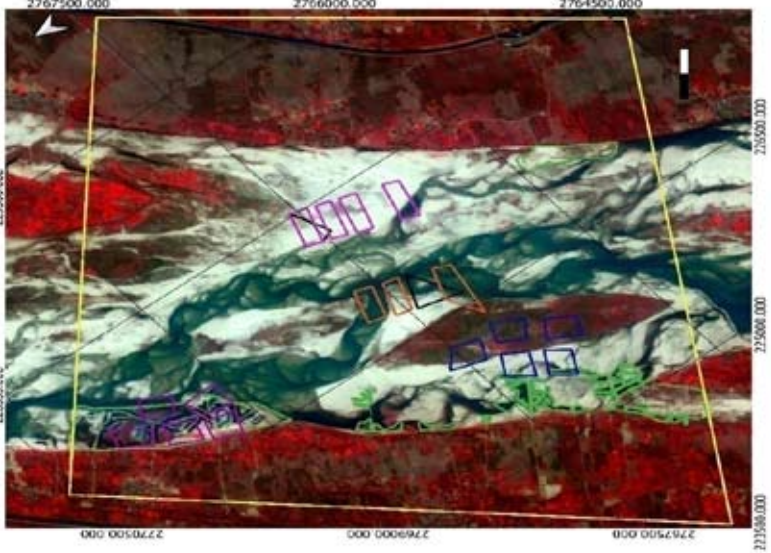
Image Date January 2020	Area of Interest-I	Area of Interest-II	Area of Interest-III
	 Legend for Area of Interest-I: - ANANPUR Ghat - Annabhad Ghat 1 to 5 - Haripur & Sadasihpur Ghat - Mahel Ghat 1 to 5 - Todhapur Ghat - Katihar Ghat - Area of Interest - Sand Mined area dated 27-01-2020 - Band 1 NIR - Band 2 RED - Band 3 GREEN - RS 2 LISS IV 5.8 m dated 27-01-2020	 Legend for Area of Interest-II: - Chilhaus Ghat - Jajpura A to E Ghat - KAB A to B Ghat - Nilamra A to D Ghat - Bani Talab Ghat - Sandesh Ghat - Seraya A B D E Ghat - Area of Interest - Sand Mined Area dated 27-01-2020 - Band 1 NIR - Band 2 RED - Band 3 GREEN - RS 2 LISS IV 5.8 m dated 27-01-2020	 Legend for Area of Interest-III: - Chitra A Ghat 2 to 5 - Chitra B2 B3 Ghat - Penhar Ghat 1 to 5 - Penhar2 Ghat A to E - Chitra B1 B3 Ghat - Area of Interest - Sand Mined Area dated 27-01-2020 - Band 1 NIR - Band 2 RED - Band 3 GREEN - RS 2 LISS IV 5.8 m dated 27-01-2020

Image Date	Area of Interest-I	Area of Interest-II	Area of Interest-III
March 2020	ANANDPUR GHAT Area of Interest Sand Mined area dated 15-03-2020 Band 1 NIR Band 2 RED Band 3 GREEN	Chikhaus Ghat Jalpura A to E Ghat KAB A to B GHAT Nisarpura A to D Ghat Rani Talab Ghat Sandesh Ghat Saraiya A B D E Ghat Area of Interest Sand Mined Area dated 15-03-2020 Band 1 NIR Band 2 RED Band 3 GREEN	Dilra A Ghat 2 to 5 Dilra B2 B4 B5 Ghat Paruhar Ghat 1 to 5 Paruhar2 Ghat A to E Dilra B1 B3 Ghat Area of Interest Sand Mined Area dated 15-03-2020 Band 1 NIR Band 2 RED Band 3 GREEN

Appendix-9
(Refer Paragraph: 4.1)

Comparison of actual and approved mining ghats

Name of District	Sl. No.	Name of sand ghat	Period in which extraction of sand mining was seen outside of approved area (Satellite Views)
Patna	1.	Kateshar	June 2019 and February 2020
	2.	Tekhapur	February 2020
	3.	Kateshar-1	February 2020
	4.	Kauria	May 2016
	5.	Chilka tola	March 2018
	6.	Panechak	January 2019 and March 2021
	7.	Mahuar	March 2021
	8.	Katari	March 2021
	9.	Janpara	May 2019 and March 2020
	10.	Lahladpur	April 2018
	11.	Amirabad Gona	March 2020
	12.	Kab	January 2019
	13.	Nisarpura	January 2019
	14.	Saraiya	January 2019
	15.	Rani Talab	April 2018
	16.	Jalpura	January 2019 and March 2020
	17.	Rajipur	March 2020
	18.	Udaipur	March 2020
	19.	Mahabalipur	March 2020
	20.	Amnabad	February 2020
	21.	Anandpur	June 2016 and June 2019
Bhojpur	22.	Kamluchak	March 2021
	23.	Kamluchak & Mahui Semariya	February 2020 and March 2021
	24.	Haripur & Shadashivpur	May 2019
	25.	New Haripur	May 2019
	26.	Koilwar & Chhitampur	February 2019
	27.	Saraunda	January 2019
	28.	Kubechak	March 2021
	29.	Farhangpur-1	January 2019
	30.	Khangaon Bhaiyara	March 2021
	31.	Khangaon	March 2021
	32.	Khangaon-1	January 2019
	33.	Bhagwatpur	November 2019
	34.	Sarimpur Bachhari	March 2020
	35.	Narayanpur	April 2018, January 2019 and March 2020
	36.	Chillhaus	March 2020
	37.	Sandesh	January 2019
	38.	Kirkirri	March 2020
	39.	Baruhi	February 2020
	40.	Baruhi-1	January 2019
	41.	Peur	January 2019
	42.	Sahar & Peurchak	May 2016 and January 2019
	43.	Abgila	May 2017
	44.	Karbasin	January 2019
	45.	Khaira	May 2017
	46.	Kharaon Kalan	April 2018
	47.	Andhari	December 2018 and January 2019
	48.	Bihta-1	May 2019
	49.	Mahui ghat	November 2018, February 2020 and March 2021

Name of District	Sl. No.	Name of sand ghat	Period in which extraction of sand mining was seen outside of approved area (Satellite Views)
Rohtas	50.	Danwar	December 2020
	51.	Amiyawar B	October 2020
	52.	Paruhar	November 2018 and January 2019
	53.	Paruhar-2	May 2019
	54.	Majhiaon	May 2019
	55.	Darihat-1	May 2019
	56.	Darihat-2	November 2018
	57.	Darihat-3	May 2019
	58.	Hurka	May 2019
	59.	Dalmiyanagar	November 2018 and May 2019
	60.	Katar	November 2018, January 2019 and May 2019
	61.	Chaknaha	June 2018 and January 2019
	62.	Shankarpur	May 2019
	63.	Jarha Bigha	November 2016
	64.	Kerpa	April 2017
	65.	Ramdihra	March 2019
Banka	66.	Godiya	January 2019, February 2020 and December 2021
	67.	Rajipur Kakna	February 2016, January 2019 and December 2021
	68.	Majhiyara Arazi	February 2016, January 2018 and February 2020
	69.	Baisa	October 2020 and December 2021
	70.	Manjhira	March 2020 and October 2020
	71.	Govindpur	February 2019 and December 2021
	72.	Jitarpur	March 2019
	73.	Patwe & Bhorwa	February 2016
	74.	Lakhnauri-1	January 2019
	75.	Lakhnauri-2	January 2019
	76.	Bisunpur	December 2021
	77.	Majhoni	March 2019, and February 2020
	78.	Jogi Pahari	November 2020
	79.	Kunani	November 2020
	80.	Saran Godiya	October 2020
	81.	Patwe Bhorwa & Majhiyara Arazi	February 2016, March 2019, March 2020 and December 2021
	82.	Domuhan	November 2017

Appendix – 10
(Refer Paragraph: 4.2)

Actual mining area in the sampled ghats

	Area of ghats (ha) as per coordinates	Actual area mined inside approved boundary	04-11-2018		20-02-2019			01-06-2019			23 & 11-11-2019			27-01-2020			15-03-2020			Per cent area mined
			Area mined (ha)	Per cent area mined	Area mined inside allotted boundary (sqm)	Area mined (ha)	Per cent area mined	Area mined inside allotted boundary (sqm)	Area mined (ha)	Per cent area mined	Area mined inside allotted boundary (sqm)	Area mined (ha)	Per cent area mined	Area mined inside allotted boundary (sqm)	Area mined (ha)	Per cent area mined	Area mined inside allotted boundary (sqm)	Area mined (ha)	Per cent area mined	
AOI-I (Ghats 1&4)	Tekapur	22.50	1,67,193.20	16.72	74.31	1,67,193.20	16.72	74.31	1,67,193.20	16.72	74.31	2,07,009.12	20.70	92.00	2,16,503.09	21.65	96.22	1,71,225.18	17.12	76.10
	Annabad ghat 1 to 5	24.11	1,22,285.68	12.23	50.72	1,09,394.80	10.94	45.38	1,09,394.80	10.94	45.38	72,667.43	7.27	30.14	1,18,247.27	11.82	49.05	2,11,869.97	21.19	87.88
	Anandpur ghat *	13.42	1,21,825.87	12.18	90.80	1,22,506.18	12.25	91.30	1,22,506.18	12.25	91.30	1,02,574.70	10.26	76.45	1,20,773.08	12.08	90.01	95,355.26	9.54	71.07
	Katesar ghat	21.93	2,19,264.57	21.93	100.00	2,19,264.57	21.93	100.00	2,19,264.57	21.93	100.00	2,14,351.79	21.43	97.76	2,19,264.57	21.93	100.00	1,89,319.85	18.93	86.34
	Haripur & Sadashivpur ghat	22.67	1,80,421.99	18.04	79.60	2,03,008.45	20.30	89.57	2,03,956.28	20.39	89.98	1,94,663.18	19.47	85.88	2,26,551.24	22.66	99.95	2,09,153.45	20.91	92.28
	Mahui ghat (Koiltwar) 1 to 5	25.10	1,22,515.50	12.25	48.81	1,71,509.21	17.15	68.33	1,71,519.08	17.15	68.33	1,96,145.14	19.61	78.14	2,11,540.09	21.15	84.28	2,11,869.97	21.19	84.41
Total Area				93.35			99.29			99.38		98.74			111.29				108.88	

Area of ghats (ha) as per coordinates	Actual area mined inside approved boundary	Area mined (ha)	Per cent area mined	Area mined inside allotted boundary (sqm)	20-02-2019			01-06-2019			23 & 11-11-2019			27-01-2020			Per cent area mined	Area mined inside allotted boundary (sqm)	Area mined (ha)	Per cent area mined
					Area mined (ha)	Per cent area mined	Area mined inside allotted boundary (sqm)	Area mined (ha)	Per cent area mined	Area mined inside allotted boundary (sqm)	Area mined (ha)	Per cent area mined	Area mined inside allotted boundary (sqm)	Area mined (ha)	Per cent area mined	Area mined inside allotted boundary (sqm)				
AOI-II (Ghats 2&3)	Chilhaus ghat	12.18	0.00	0.00	1.01	8.27	24,906.40	2.49	20.45	0.00	0.00	41,966.01	4.20	34.45	5,375.68	0.54	4.41			
	Kab ghat A to D	19.21	69,136.77	6.91	9.72	50.61	1,17,876.36	11.79	61.36	22,909.24	2.29	11.93	53,852.39	5.38	28.03	79,302.42	7.93	41.28		
	Nisarpura ghat A to D	20.08	0.00	0.00	1.01	5.02	35,434.78	3.54	17.65	2,734.48	0.27	1.36	4203.65	0.42	2.09	1,40,416.10	14.04	69.93		
	Sandesh ghat	8.33	3,146.87	0.31	2.15	25.82	10,235.08	1.02	12.29	0.00	0.00	0.00	0.00	0.00	1,925.79	0.19	2.31			
	Saraiya ghat A,B, D, E	19.98	32,284.16	3.23	8.25	41.31	85,391.99	8.54	42.74	17,652.13	1.77	8.84	1,04,795.30	10.48	52.45	68,270.89	6.83	34.17		
	Rani Talab	15.61	0.00	0.00	0.00	0.00	38.53	0.00	0.02	2,268.32	0.23	1.45	0.00	0.00	0.00	0.00	0.00	0.00		
	Jalpura ghat A to E	23.48	1,66,857.66	16.69	10.10	43.03	1,23,859.23	12.39	52.75	85,324.72	8.53	36.34	1,24,605.07	12.46	53.07	47,958.25	4.79	20.43		
Total Area			27.14		32.24		39.77				13.09		32.94		34.32					
AOI-III (Ghats-5)	Paruhar 1 to 5	25.31	0.24	0.00	0.35	1.37	6,250.29	0.63	2.47	0.00	0.00	8,929.43	0.89	3.53	15,981.07	1.60	6.31			
	Paruhar 2 A to E	25.03	17,643.30	1.76	7.96	31.79	90,537.49	9.05	36.18	1,96,640.50	19.66	78.57	2,16,777.64	21.68	86.62	2,02,843.42	20.28	81.05		
	Dihra A ghat 2 to 5**	19.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	Dihra B1 to B5*	27.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Total Area				1.76	8.30		9.68				19.66		22.57		21.88					

* Overlapping *ghats*, area may not be correct due to incorrect coordinates

** Dihra A *ghat* 1 area coordinates may be wrong hence not included for the analysis

Appendix-11*(Refer Paragraph: 4.2)***Actual mining area in the sampled ghats****Statistics of the mined area (approximate) within the AOI during the selected time period**

Period	AOI-I (1,130.50 hectare)			
	Total area Mined within AOI	Mined area in approved ghats	Illegal Mined area (outside approved area)	Per cent area of illegal mining
	Hectare	Hectare	Hectare	
November 2018	436.62	93.35	343.27	30.36
February 2019	460.96	99.29	361.68	31.99
June 2019	481.35	99.38	381.97	33.79
November 2019	534.20	98.74	435.46	38.52
January 2020	632.31	111.29	521.03	46.09
March 2020	745.41	108.88	636.53	56.30
AOI-II (2,303.23 hectare)				
Period	Total area Mined within AOI	Mined area in approved ghats	Illegal Mined area (outside approved area)	Per cent area of illegal mining
	Hectare	Hectare	Hectare	
November 2018	78.75	27.14	51.61	2.24
February 2019	158.69	32.24	126.44	5.49
June 2019	200.39	39.77	160.61	6.97
November 2019	104.48	13.09	91.40	3.97
January 2020	167.22	32.94	134.28	5.83
March 2020	181.90	34.32	147.58	6.41
AOI-III (2,126.12 hectare)				
Period	Total area Mined within AOI	Mined area in approved ghats	Illegal Mined area (outside approved area)	Per cent area of illegal mining
	Hectare	Hectare	Hectare	
November 2018	8.87	1.76	7.10	0.33
February 2019	33.36	8.30	25.05	1.18
June 2019	60.50	9.68	50.82	2.39
November 2019	71.69	9.66	52.02	2.45
January 2020	101.63	22.57	79.06	3.72
March 2020	102.65	21.88	80.77	3.80

Appendix-12
(Refer Paragraph: 4.3.2)
Mining activities seen in satellite images where nil extraction report was submitted by lessees of sand mining lease

Name of District	Sl. No.	Name of sand ghat	Area in hectare	River	Despatch in 2018 (cft)	Despatch in 2019 (cft)	Despatch in 2020 (cft)	Satellite views	Other remarks
Patna	1.	Anandpur	12	Sone	35,07,700	0	NA	Movement of vehicles/pocklane etc. shown in 2019 in satellite images.	However, total despatch nil shown in 2019 in database.
	2.	Janpara-1	24.8	Sone	0	1,95,28,525	NA	Movement of vehicles/pocklane etc. shown in April 2018 in satellite images.	Found excess despatch against EC in 2019 in database. However, total despatch nil shown in 2018 in database.
Bhojpur	3.	Chilhous	12	Sone	0	87,48,600	0	Movement of vehicles/pocklane etc. shown in March 2020 in satellite images.	However, total despatch shown nil in 2020.

Appendix-13
(Refer Paragraph: 4.3.3)

Excess extraction against despatches reported by lessees of sand ghats

1. Patna

Amirabad Gona sand ghat			Lahladpur sand ghat		Nisarpura sand ghat	
Image date	March 2020		April 2018		January 2019	
Sl. No.	Name of polygone	Area (sq. metre)	Name of polygone	Area (sq. metre)	Name of polygone	Area (sq. metre)
1.	A.G. A	40.00	A	1,068.00	Nisarpura Ext. A	6,462.00
2.	B	37.80	B	296.00	B	6,539.00
3.	C	70.50	C	300.00	C	3,961.00
4.	D	43.40	D	40.80	D	4,158.00
5.	E	51.40	E	64.50	E	8,452.00
6.	F	34.70	F	421.00	F	349.00
7.	G	969.00	G	1,407.00	Total	29,921.00
8.	H	73.80	H	233.00		
9.	I	25.80	I	39.40		
10.	J	1,141.00	J	46.40		
11.	K	52.80	K	43.70		
12.	L	44.30	L	39.80		
13.	M	699.00	M	18.00		
14.	N	120.00	N	22.90		
15.	O	6,156.00	O	77.20		
16.	P	4,487.00	P	142.00		
17.	Q	30.30	Q	64.70		
18.	R	11.50	R	39.00		
19.	S	58.30	S	119.00		
20.	T	43.50	T	2,526.00		
21.	U	13.30	U	432.00		
22.	V	18.80	V	2,590.00		
23.	W	15.00	W	41.40		
24.	X	28.80	X	26.70		
25.	Y	18.90	Y	18.20		
26.	Z	15.90	Z	20.90		
27.	AA	10.00	AA	17.10		
28.	AB	17.00	AB	28.70		
29.	AC	17.90	AC	1,227.00		
30.	AD	23.70	AD	22.10		
31.	AE	15.20	AE	2,669.00		
32.	AF	66.30	AF	24.30		
33.	AG	70.80	AG	3,737.00		
34.	AH	164.00	AH	206.00		
35.	AI	49.70	AI	33.00		
36.	AJ	10.50	AJ	85.50		
37.	AK	21.70	AK	1,089.00		

Amirabad Gona sand ghat			Lahladpur sand ghat		Nisarpura sand ghat	
Image date	March 2020		April 2018		January 2019	
Sl. No.	Name of polygone	Area (sq. metre)	Name of polygone	Area (sq. metre)	Name of polygone	Area (sq. metre)
38.	AL	35.90	AL	34.10		
39.	AM	51.80	AM	4,272.00		
40.	AN	70.00	AN	659.00		
41.	AO	25.00	AO	5,095.00		
42.	AP	21.10	AP	28.40		
43.	AQ	22.70	AQ	25.00		
44.	AR	60.40	AR	17.00		
45.	AS	12.10	AS	422.00		
46.	AT	12.40	AT	69.10		
47.	AU	14.10	AU	70.40		
48.	AV	582.00	AV	173.00		
49.	AW	454.00	AW	45.40		
50.	AX	3,426.00	AX	33.70		
51.	AY	5,155.00	AY	186.00		
52.	AZ	6,597.00	AZ	152.00		
53.	AAA	422.00	Total	30,558.40		
54.	AAB	3,872.00				
55.	AAC	1,261.00				
56.	AAD	345.00				
57.	AAE	3,214.00				
58.	AAF	17,378.00				
59.	AAG	21,864.00				
60.	AAH	2,614.00				
61.	AAI	58.40				
62.	AAJ	4,639.00				
63.	AAK	6,472.00				
64.	AAL	2,529.00				
65.	AAM	1,207.00				
66.	AAN	40.50				
67.	AAO	59.00				
68.	AAP	2,477.00				
69.	AAQ	7,769.00				
70.	AAR	6,742.00				
71.	AAS	5,821.00				
72.	AAT	1,653.00				
73.	AAU	59.00				
74.	AAV	3,390.00				
75.	AAW	2,705.00				
76.	AAX	2,549.00				
77.	AAZ	754.00				
78.	AAZ	709.00				
79.	ABA	932.00				

Amirabad Gona sand ghat			Lahladpur sand ghat		Nisarpura sand ghat	
Image date	March 2020		April 2018		January 2019	
Sl. No.	Name of polygon	Area (sq. metre)	Name of polygon	Area (sq. metre)	Name of polygon	Area (sq. metre)
80.	ABB	202.00				
81.	ABC	100.00				
82.	ABD	57.70				
83.	ABE	44.30				
84.	ABF	16.00				
85.	ABG	26.20				
86.	ABH	66.40				
87.	ABI	95.00				
88.	ABJ	53.40				
89.	ABK	74.60				
Total		1,33,577.60				

2. Rohtas

Name of sand ghat- Chaknaha				
Image Date	January 2019		November 2018	
Sl. No.	Name of polygon	Area (sq. metre)	Name of polygon	Area (sq. metre)
1.	A	10,784.00	A	3,088.00
2.	B	6,117.00	B	1,744.00
3.	C	3,837.00	C	1,103.00
4.	D	13,719.00	D	2,212.00
5.	E	42,120.00	E	35.00
6.	F	2,995.00	F	34.50
7.	G	3,027.00	Total	8,216.50
8.	H	6,564.00		
9.	I	964.00		
10.	J	26,866.00		
11.	K	10,829.00		
12.	L	15,798.00		
13.	M	11,823.00		
14.	N	16,555.00		
15.	O	14,510.00		
16.	P	3,145.00		
17.	Q	109.00		
18.	R	710.00		
19.	S	1,879.00		
20.	T	932.00		
21.	U	1,470.00		
22.	V	609.00		
Total		1,95,362.00		

Name of sand <i>ghat</i> - Katar			Name of sand <i>ghat</i> - Darihat-3	
January 2019			June 2018	
Sl. No.	Name of polygone	Area (sq. metre)	Name of polygone	Area (sq. metre)
1.	A	8,996.00	A	7,858.00
2.	B	13,938.00	B	10,999.00
3.	C	5,868.00	C	2,986.00
4.	D	20,294.00	D	3,540.00
5.	E	8,352.00	E	3,554.00
6.	F	28,358.00	F	4,036.00
7.	G	47,219.00	G	4,022.00
8.	H	1,353.00	H	2,538.00
9.	I	7,806.00	I	8,405.00
10.	K	7,892.00	J	6,849.00
11.	L	9,228.00	K	4,706.00
12.	M	13,148.00	L	923.00
13.	N	21,634.00	M	1,621.00
14.	O	11,091.00	N	1,337.00
15.	P	1,530.00	O	1,317.00
16.	Q	8,169.00	P	113.00
17.	R	18,315.00	Q	61.20
18.	S	25,447.00	R	72.80
19.	T	14,179.00	S	99.40
20.	U	1,900.00	Total	65,037.40
21.	V	5,063.00		
22.	W	8,534.00		
23.	X	4,851.00		
24.	Y	3,008.00		
25.	Z	4,417.00		
26.	AA	3,538.00		
27.	AB	3,653.00		
28.	AC	3,605.00		
29.	AD	1,335.00		
30.	AE	772.00		
31.	AF	1,087.00		
Total		3,14,580.00		

Appendix-14*(Refer Paragraph: 4.5)***Transportation of minerals by unrealistic vehicles****Unrealistic vehicles– district wise (November 2017- July 2021)**

District	No. of e-challans	Range of weight carried	No. of vehicles	Mineral weight (in MT)
Aurangabad	11,363	1.82-39.94	3,060	1,38,840.47
Banka	13,814	4-36	3,129	2,10,990.58
Bhagalpur	284	4-18	105	1,378.00
Bhojpur	33,103	4-36	8,543	4,38,511.62
Gaya	38,878	0.16-41.58	7,753	2,82,284.87
Kaimur (Bhabua)	424	4-20	111	1,712.00
Nalanda	2,550	4-28	1,140	19,018.00
Nawada	33,068	0.14-41.44	8,122	2,97,048.83
Patna	95,268	0.16-36	15,048	5,83,151.18
Rohtas	4,520	4-36	1,660	51,762.89
Saran	1,160	4-36	742	13,858.00
Sheikhpura	7,883	0.39-52.21	2,534	2,27,655.88
Vaishali	1,496	4-28	404	11,614.25
Grand Total	2,43,811	-	52,351*	22,77,826.57

* In 52,351 vehicles, there are different 46,935 vehicle registration numbers.

Note: The report has been prepared on the basis on database provided by PMU as per adopted methodologies.

Appendix-15
(Refer Paragraph: 4.7)
Fake e-challans used in works divisions

Sl. No.	Name of division	Total No. e-challans produced by division	Quantities of minerals in produced e-challans (cft)	Number of invalid e-challans	Quantity /Type of invalid e-challans (cft)	Type of Minor Mineral	Royalty involved in invalid e-challans (₹ in lakh) ³	Remarks
1.	Road Construction Division, Bihar sharif, Nalanda	7,820	3,79,706	705	4,18,206	Sand/ Stone/ Stone Dust	10.39	
2.	Flood Control Division, Bihar sharif, Nalanda	15	9,000	15	9,000	Sand	0.13	
3.	Rural Works Division, Harnaut, Nalanda	109	--	31	15,815	Stone	0.45	In 31 e-challans when checked, found correct but UID No. did not match.
4.	Irrigation Division, Kaimur	360	1,80,000	360	1,80,000	Sand	2.56	
5.	Road Construction Division, Kaimur	1,595	11,16,500	1,595	11,16,500	Stone	31.60	
6.	Sone High Level Division, Kaimur	715	--	0	--	Stone	0	140 e-Challans have vehicle number of LMV (<i>i.e.</i> , Motorcycle, Auto, Pick up, Scorpio, Tractor, Tanker <i>etc.</i>) used in works division.
7.	Road Construction Division, Patna West	5,384	6,90,867	2,721	15,03,765	Stone	42.55	

³ Sand at the rate of ₹ 1.42 per cft and stone at the rate of ₹ 2.83 per cft.

Sl. No.	Name of division	Total No. e-challans produced by division	Quantities of minerals in produced e-challans (cft)	Number of invalid e-challans	Quantity /Type of invalid e-challans (cft)	Type of Minor Mineral	Royalty involved in invalid e-challans (₹ in lakh) ³	Remarks
8.	Punpun Flood protection Division, Patna	5,679	28,39,500	5,679	28,39,500	Sand	40.32	
9.	Ganga Sone Barh Suraksha Division, Patna	390	--	16	4,450	Sand	0.06	
10.	Road Contruccion Division, Shahabad, Bhojpur	393	2,58,720	393	2,58,720	Stone	7.32	
11.	Sone High Level Canal Division, Aurangabad	3,735	19,97,119	3,735	19,97,119	Sand/ Stone	35.06	
12.	Road Construction Division, Sheikhpura	333	1,99,800	333	1,99,800	Stone	5.67	
13.	Building Construction Division, Sheikhpura	1,067	--	13	1,300	Sand	0.02	
14.	Road Construction Division, Chapra	49	19,600	49	19,600	Stone	0.55	
15.	New Capital Division, RCD, Patna	3,967	26,27,450	3,967	26,26,350	Stone	74.32	
16.	Road Construction Division, Dehri-on-Sone, Rohtas	1,580	7,95,686	1,580	7,95,686	Stone	22.52	
Total		33,191	1,11,13,948	21,192	1,19,85,811		273.52	

Appendix-16
(Refer Paragraph: 4.8)

Loss of revenue due to irregular/illegal verification of form M and N

(Amount in ₹)

Name of Works Division	Name of DMO from whom M & N verified	Name of minerals	Quantity of minerals (cubic metre)	Royalty payable	Remarks
R.W.D. works Division Harnaut Nalanda	DMO, Sheikhpura	Stone Aggregate	11,800.00	11,80,000	Letter not found in Concerned DMO's record.
	Bhagalpur	Stone Aggregate/ Dust/Chips/ Metal and Screening	4,454.75	4,40,255	
R.W.D. works Division, Biharsharif, Nalanda	Sheikhpura	Stone Metal/ Chips, GSB and Screening	2,490.14	2,49,014	
Building Division, Bhagalpur	Bhagalpur	Stone Metal/ Chips, Sand	38,000.00	34,35,000	
		Bricks	25,20,000.00	73,080	
Road Constrution, Bhagalpur	Bhagalpur	Sand/Stone/ Bolder	99,057.42	97,01,119	
Road Constrution Division, Bhagalpur	Sub Divisional, Land and Land Reforms Officer, suri sadar, Birbhum, Government of West Bengal	Stone	1,41,586.58	2,03,96,412	Proper procedure for verification as per SoP not followed.
Minor Irrigation, Bhagalpur	Sub Divisional, Land and Land Reforms Officer, suri sadar, Birbhum, Government of West Bengal	Stone boulder	13,900.00	20,85,000	
National Highway Division, Bhagalpur	Sub Divisional, Land and Land Reforms Officer, suri sadar, Birbhum, Government of West Bengal	Black stone	1,63,034.07	1,63,03,407	Proper procedure for verification as per SoP not followed.
	Bhagalpur	Stone, Sand	20,832.10	20,03,910	Letter not found in Concerned DMO's record.
	Nawada	Stone	20,939.00	20,93,900	
Total				5,79,61,097	

Appendix-17
(Refer Paragraph: 5.1)
Non-utilisation of District Minreral Foundation Fund

Sl. No.	Name of DMO	Bank name	Account No. (Type of Account)	Total available funds under DMF	Amount spent/ utilised	Balance as on 31.03.2021	Balance DMF amount as on audit date
1.	Aurangabad	SBI	38003587505(SB)	13,04,16,657	0	12,42,28,334	13,04,16,657
2.	Banka	SBI	38024291933(SB)	6,15,19,559	65,00,000	4,77,54,478	5,50,19,559
				1,61,21,264		1,61,21,264	1,61,21,264
3.	Bhagalpur	PNB	196600100115644(SB)	12,19,107	0	11,93,871	12,19,107
		Bank of Baroda	10010100005215	29,63,090		29,63,090	29,63,090
4.	Bhojpur	SBI	37975902406(SB)	9,53,38,559	4,91,385	8,86,61,911	9,48,47,174
		PNB	0022000103434856	6,96,77,969		6,96,77,969	6,96,77,969
5.	Gaya	SBI	37979116601(SB)	10,64,50,352	4,31,20,855	6,26,22,441	6,33,29,497
6.	Kaimur	PNB	2696000100268695(CA)	32,53,383	13,24,815	18,62,884	19,28,568
7.	Nalanda	SBI	37957561975(SB)	97,32,042	17,50,367	78,30,270	79,81,675
8.	Nawada	SBI	37713383762(SB)	5,00,05,884	0	4,40,23,808	5,00,05,884
9.	Patna	HDFC Bank	50100238975831(SB)	11,03,48,033	1,60,22,452	8,95,61,172	9,43,25,581
10.	Rohtas	SBI	37912612018(SB)	20,11,85,208	1,57,19,678	17,59,07,458	18,54,65,530
11.	Saran	SBI	37914882356(SB)	1,09,17,912	65,68,631	39,47,170	43,49,281
12.	Sheikhpura	SBI	37910833661(SB)	4,28,94,625	38,59,354	3,74,35,290	3,90,35,271
13.	Siwan	SBI	37964711823(CA)	11,37,632	2,63,340	7,14,511	8,74,292
14.	Vaishali	SBI	38071632447(SB)	41,09,875	0	31,75,191	41,09,875
				12,85,606		12,85,606	12,85,606
Total				91,85,76,757	9,56,20,877	77,89,66,718	82,29,55,880

Appendix-18
(Refer Paragraph: 5.2)
Non-utilisation of District Mineral Foundation Fund for purchase/installation of testing, screening and other equipment in connection with preventing the spread of COVID-19 pandemic

(Amount in ₹)

Name of District Mining Office	Amount of DMF balance as on 31.03.2021	Amount of DMF available for expenditure on Covid-19 pandemic	Amount spent on Covid-19 pandemic	Non/short utilisation of DMF amount for Covid-19 pandemic	Remarks
Aurangabad	12,42,28,334.50	3,72,68,500.40	Nil	3,72,68,500.40	As on 31.03.2021
Banka	4,77,54,478.50	1,43,26,343.50	Nil	1,43,26,343.50	As on 31.03.2021
Bhagalpur	41,56,961.00	12,47,088.30	Nil	12,47,088.30	As on 31.03.2021
Bhojpur	8,86,61,911.50	2,65,98,573.50	4,91,385.00	2,61,07,188.50	Spent to establish oxygen pipeline for Covid-19 patient in OPD ward of District Hospital, Bhojpur.
Gaya	6,26,22,441.50	1,87,86,732.50	36,58,645.00	1,51,28,087.50	As on 31.03.2021
Kaimur	18,62,884.00	5,58,865.20	Nil	5,58,865.20	As on 31.03.2021
Nalanda	78,30,270.20	23,49,081.06	Nil	23,49,081.06	As on 31.03.2021
Nawada	4,40,23,808.00	1,32,07,142.40	Nil	1,32,07,142.40	As on 31.03.2021
Patna	8,95,61,172.30	2,68,68,351.70	Nil	2,68,68,351.70	As on 31.03.2021
Rohtas	17,59,07,458.50	5,27,72,237.60	Nil	5,27,72,237.60	As on 31.03.2021
Saran	39,47,170.50	11,84,151.15	Nil	11,84,151.15	As on 31.03.2021
Sheikhpura	3,74,35,290.80	1,12,30,587.00	4,91,400.00	1,07,39,187.00	Spent on separate Aluminium Composite Panel (ACP) at seven PHCs was installed.
Siwan	7,14,511.00	2,14,353.30	2,63,340.00	0	02 kiyosk to Sadar Hospital, Siwan for testing and screening of Covid patients.
Vaishali	31,75,191.00	9,52,557.30	Nil	9,52,557.30	As on 31.03.2021
Total	69,18,81,883.30	20,75,64,564.91	49,04,770.00	20,27,08,781.61	

Appendix-19
(Refer Paragraph: 5.6)
Short-realisation of DMF Fund from lessee of sand ghats and stone quarries

(Amount in ₹)								
Name of DMO	Name of mineral	Name of lease & lessee	Settlement amount	Instalment No./ due date of payment	Amount of instalment	DMF Fund to be realised	Amount of DMF paid	Due DMF Fund
Sheikhpura	Stone	Block No.04, Arena Food and Agro Pvt. Ltd.	29,00,00,000	3 rd /31.01.2019	5,80,00,000	11,60,000	Nil	11,60,000
				4 th /31.01.2020	5,80,00,000	11,60,000	Nil	11,60,000
				5 th /31.01.2021	5,80,00,000	11,60,000	Nil	11,60,000
Nawada	Stone	Bhadhokra Block-2, Valmiki Prasad, Dist.- Nawada	4,60,00,000	5 th /31.01.2020	92,00,000	1,84,000	Nil	1,84,000
		Rajauli Block-4, Katyayni Contractors Pvt. Ltd.	6,60,00,000	2 nd /31.01.2018	1,32,00,000	2,64,000	Nil	2,64,000
				3 rd /31.01.2019	1,32,00,000	2,64,000	Nil	2,64,000
				4 th /31.01.2020	1,32,00,000	2,64,000	Nil	2,64,000
				5 th /31.01.2021	1,32,00,000	2,64,000	Nil	2,64,000
				4 th /31.01.2020	1,15,20,000	2,30,400	Nil	2,30,400
Aurangabad	Sand	Rajauli Block-6, BSCPL Ltd.	5,76,00,000	5 th /31.01.2021	1,15,20,000	2,30,400	Nil	2,30,400
		(for January to March 2021)		2 nd /31.01.2021	19,15,70,160	38,31,403	36,63,915	1,67,488
Rohtas	Sand	Aditya Multicom Pvt. Ltd.	1,79,87,19,876 (for January to October 2020)	3 rd /29.02.2020	42,46,20,405	8492408	8,07,640	76,84,768
Banka	Sand	M/s Mahadev Enclave Pvt. Ltd.	60,21,91,627 (after adjusting proportionate amount for 43 days of Covid period)	For the Year 2020 (January to December)	--	1,20,43,833	63,57,504	56,86,329
Grand Total								1,87,19,385

Appendix-20
(Refer Paragraph: 5.6)
Non-realisation of DMF Fund from brick kiln owners

District Mining Office	Year	Total brick kilns operated	No. of brick kilns royalty paid	Amount of Royalty paid by brick kilns	DMF Fund to be realised	DMF Fund Paid	Short realisation of DMF Fund
							(Amount in ₹)
Saran	2017-18	323	268	2,10,40,675	4,20,814.00	0	4,20,814.00
	2018-19	327	310	2,41,90,965	4,83,819.00	1,61,722	3,22,097.00
	2019-20	305	268	3,08,82,648	6,17,654.00	4,99,270	1,18,384.00
	2020-21	325	268	3,68,46,526	7,36,931.00	2,21,125	5,15,806.00
Patna	2017-18	311	228	2,02,35,091	4,04,701.82	0	4,04,701.82
	2018-19	344	287	2,66,03,971	5,32,079.42	5,29,770	2,309.42
	2019-20	344	278	4,08,79,197	8,17,583.94	7,86,937	30,646.94
	2020-21	367	63	1,56,36,550	3,12,731.00	0	3,12,731.00
Sheikhpura	2017-18	46	37	26,82,500	53,650.00	0	53,650.00
Bhagalpur Siwan	2017-18	153	138	1,03,21,726	2,00,915.00	63,950	1,36,965.00
	2017-18	193	188	1,39,95,281	2,79,906.00	0	2,79,906.00
	2018-19	223	204	1,47,81,530	2,95,631.00	25,640	2,69,991.00
	2019-20	243	180	1,84,21,375	3,68,428.00	2,77,607	90,821.00
Nalanda	2020-21	223	179	2,22,95,120	4,45,902.00	3,45,728	1,00,174.00
	2017-18	280	182	1,42,32,588	2,84,652.00	7,580	2,77,072.00
	2018-19	273	183	1,43,37,504	2,86,750.00	2,88,359	0.00
	2019-20	239	200	2,82,78,740	5,65,575.00	5,50,254	15,320.00
	2020-21	247	202	2,60,39,000	5,20,780.00	4,88,628	32,152.00

District Mining Office	Year	Total brick kilns operated	No. of brick kilns royalty paid	Amount of Royalty paid by brick kilns	DMF Fund to be realised	DMF Fund Paid	Short realisation of DMF Fund
Kaimur	2017-18	156	144	1,10,35,092	2,19,084.00	0	2,19,084.00
	2018-19	147	141	1,06,80,544	96,694.00	0	96,694.00
	2019-20	132	127	2,82,78,740	2,01,000.00	1,79,902	21,098.00
	2020-21	132	120	2,60,39,000	36,413.00	15,450	20,963.00
Aurangabad	2017-18	215	153	1,08,89,975	2,17,799.00	0	2,17,799.00
	2018-19	228	172	1,22,72,370	2,45,447.00	2,23,540	21,907.00
	2019-20	221	145	1,59,94,376	3,19,887.00	0	3,19,887.00
	2020-21	223	146	1,74,29,375	3,48,587.00	3,38,185	10,402.00
Banka	2017-18	07	07	5,07,500	10,150.00	0	10,150.00
	2018-19	09	09	6,52,500	13,050.00	11,600	1,450.00
	2019-20	07	07	5,07,500	10,150.00	7,250	2,900.00
Vaishali	2017-18	274	245	1,90,06,500	3,80,129.00	0	3,80,129.00
	2018-19	269	244	1,66,12,229	79,695.00	0	79,695.00
	2019-20	262	203	2,59,14,051	5,18,280.00	4,600	5,13,680.00
	2020-21	263	247	3,04,90,183	6,09,803.00	1,09,978	4,99,825.00
Nawada	2017-18	240	118	85,55,000	1,71,000.00	0	1,78,000.00
	2018-19	240	148	1,07,30,000	2,15,000.00	1,41,000	74,000.00
	2019-20	235	125	1,40,94,000	2,82,000.00	1,45,000	1,37,000.00
Grand Total							61,88,204.18

Appendix-21
(Refer Paragraph: 5.7)
Non-levy of DMF Fund on royalty charged for excess extraction of sand

		(Amount in ₹)				
Name of DMO	Year	Excess quantity of extracted sand (cft)	Extra royalty charged	Leviable DMF Fund (at the rate of 2 per cent)	Amount of DMF paid	Amount of DMF to be realised
Nawada	2017	1,00,61,052	1,42,86,694.00	2,85,734.00	00	2,85,734.00
	2018	1,43,92,402	2,04,37,211.00	4,08,744.00	00	4,08,744.00
	2019	47,91,967	68,04,593.00	1,36,092.00	00	1,36,092.00
Patna	2017	2,59,77,925	3,68,88,654.00	7,37,773.00	00	7,37,773.00
	2018	46,68,862	66,29,784.00	1,32,596.00	00	1,32,596.00
	2019	1,46,21,779	2,07,62,927.00	4,15,259.00	00	4,15,259.00
		Total				
		21,16,198.00				

Appendix-22
(Refer Paragraph: 5.8)
Non-levy of interest on delayed payment of DMF Fund from lessees of sand ghats and stone quarries

(Amount in ₹)

Name of DMO	Name of mineral	Settlement amount	Amount of instalment	DMF to be realised	Amount of DMF paid	Delay in days	Interest on delay payment of DMF
Aurangabad	Stone	32,10,00,000	12,84,00,000	25,68,000	25,84,000	156-340	4,02,759
Aurangabad	Sand	5,65,92,87,233	4,16,92,97,116	8,33,85,945	8,32,18,470	9-249	35,83,795
Bhojpur	Sand	3,71,40,44,348	1,41,00,36,140	2,82,00,720	2,82,00,724	1-181	17,86,484
Nawada	Stone	1,02,21,50,000	59,55,34,488	1,31,21,000	1,31,21,000	1-965	27,57,568
Nawada	Sand	37,77,29,454	20,96,17,018	41,92,341	41,92,341	2-60	68,179
Gaya	Sand	65,49,73,545	44,03,63,803	88,07,276	88,07,276	19-124	4,51,835
Kaimur	Sand	10,21,05,802	10,21,05,803	20,42,115	20,42,192	51-443	3,09,893
Nalanda	Sand	31,07,74,464	29,12,28,093	62,15,490	62,15,490	9-154	2,53,039
Patna	Sand	3,44,07,00,708	1,49,28,00,663	2,86,48,043	2,86,48,044	1-182	16,95,942
Rohtas	Sand	5,79,01,51,664	3,99,14,31,794	7,98,28,637	7,98,28,653	4-169	24,04,482
Saran	Sand	17,21,13,790	8,19,37,769	16,38,755	16,38,717	23-218	1,19,384
Sheikhpura	Stone	1,55,94,00,000	1,11,85,80,000	2,23,71,600	1,86,01,600	1-881	27,76,742
Vaishali	Sand	7,73,81,231	6,25,43,926	12,50,880	12,48,992	1-431	91,335
Grand Total		23,20,18,12,239	14,09,38,76,613	28,22,70,802	27,83,47,499	1-965	1,67,01,437

Appendix-23
(Refer Paragraph: 5.10)
Non/short realisation of Royalty, Seigniorage Fee and DMF Fund for use of ordinary earth

Name of District Mining Office	Royalty to be paid	Royalty paid	Penalty leviable equivalent to royalty	Seigniorage Fee leviable (at the rate of 10 per cent)	Seigniorage Fee paid	DMF Fund leviable (at the rate of 2 per cent)	DMF Fund paid	Total due amount
Aurangabad	2,96,52,140	2,96,52,140	Not Applicable	2,39,800	Nil	5,93,043	Nil	8,32,843
Bhojpur	75,00,000	75,00,000	Not Applicable	7,50,000	Nil	1,50,000	Nil	9,00,000
Chapra	74,81,400	74,81,400	69,71,400	51,000	Nil	1,49,628	Nil	71,72,028
Kaimur	1,63,85,000	1,63,85,000	1,63,85,000	Not Applicable	Not Applicable	3,27,700	Nil	1,67,12,700
Nalanda	95,32,000	95,32,000	95,32,000	Not Applicable	Not Applicable	1,90,640	Nil	97,22,640
Patna	3,66,61,111	3,35,71,440	Not Applicable	36,66,111	21,69,420	7,33,222	Nil	53,19,584
Vaishali	50,00,000	50,00,000	50,00,000	Not Applicable	Not Applicable	1,00,000	Nil	51,00,000
Total	11,22,11,651	10,91,21,980	3,78,88,400	47,06,911	21,69,420	22,44,233	Nil	4,57,59,795

Appendix-24
Non-adherence to the directives for prevention of illegal mining
(Refer Paragraph: 6.1)

Name of district	No. of raids carried out	No. of overloading cases reported	No. of vehicles seized	No. of FIR lodged	No. of person arrested	Recovery of amounts (in lakh)	No. of meetings to be conducted	No. of meetings conducted	Remarks
Patna	2,945	2,627(during 2017-18 to 2019-20)	3,706	424	728	752.45	48	12	04 joint inspection carried out during 2017-18 to 2019-20.
Sheikhpura	938	398	576	36	0	123.45	48	05	05 joint inspections were carried.
Bhojpur	1,556	--	3,231	186	530	775.75	48	13	During 2019-20 & 2020-21 only.
Rohtas	5,211	1,661 in 2017-18 only	5,884	378	154	1,768.35	48	10	-
Nalanda	2,437	1,785	3,129	506	251	533.10	48	07	No joint inspection.
Kaimur	1,961	4,360	6,505	201	225	2,019.81	48	31	38 joint inspection.
Siwan	1,888	1,580	1,555	41	12	379.50	48	04	No joint inspection.
Bhagalpur	1,305	2,426	2,426	34	28	1,021.30	48	09	No joint inspection.
Aurangabad	2,188	1,539	3,386	223	186	868.39	48	30	9,56,480 cft sand & 80,834 cft stone seized.
Banka	2,354	985	2,456	828	539	939.50	48	19	1,13,830 cft sand & 17700 cft stone seized.
Vaishali	931	894	1,092	156	146	236.02	48	06	2,56,675 cft sand & 47,900 cft stone seized.
Nawada	1,595	--	1,669	333	242	370.23	48	04	-
Gaya	5,333	--	3,300	935	492	652.68	48	04	-
Saran	1,784	32 overloaded and 18 unfit/unregistered	2,374	327	890	889.89	48	21	15,78,150 sand/stone seized.
Grand Total	32,426	18,287	41,289	4,608	4,423	11,330.42	672	175	

Appendix-25

(Refer Paragraph: 6.2)

Loss of royalty due to non-co-ordination between District Transport Offices and District Mining Offices in context of seized vehicles involved in transportation of illegal minerals

(Amount in ₹)

Sl. No.	Name of district	Period	Number of vehicles seized	Number of vehicles test checked	Number of vehicles objected	Amount of fine	Royalty involved	Cost of mineral	Total revenue loss
1.	DMO, Aurangabad	5/2017 TO 3/2019	800	125	125	12,50,000	3,39,347	15,34,261	3,123,608
2.	DMO, Banka	4/2017 TO 2/2020	792	87	87	8,70,000	2,50,085	7,39,220	18,59,305
3.	DMO, Gaya	4/2017 TO 3/2019	495	118	118	11,80,000	2,18,119	8,76,677	22,74,796
4.	DMO, Nawada	4/2017 TO 2/2020	650	59	59	5,90,000	1,44,884	4,05,368	11,40,252
5.	DMO, Saran	11/2017 TO 4/2019	797	410	410	41,00,000	6,99,568	30,17,935	78,17,503
6.	DMO, Sheikhpura	6/2018 TO 1/2019	60	17	17	1,70,000	29,377	86,362	2,85,739
7.	DMO, Nalanda	11/2017 TO 2/2020	365	144	144	14,40,000	94,761	4,41,141	19,75,902
8.	DMO, Siwan	8/2018 TO 2/2020	730	290	290	29,00,000	1,29,572	7,71,711	38,01,283
9.	DMO, Kaimur	12/2018 TO 12/2019	745	201	201	20,10,000	2,08,740	9,80,026	31,98,766
10.	DMO, Bhagalpur	11/2017 TO 12/2019	1,121	474	474	47,40,000	3,75,420	17,33,902	68,49,322
11.	DMO, Patna	4/2017 TO 3/2019	1,102	399	399	39,90,000	4,85,905	24,29,523	69,05,428
12.	DMO, Rohtas	4/2017 TO 12/2019	346	29	29	2,90,000	51,200	2,56,000	5,97,200
13.	DMO, Bhojpur	12/2018 TO 02/2020	80	26	26	2,60,000	13,369	54,475	3,27,844
14.	DMO, Vaishali	03/2019 TO 01/2020	400	103	103	10,30,000	1,72,807	6,80,562	18,83,369
Total			8,483	2,482	2,482	2,48,20,000	30,13,154	1,40,07,163	4,20,40,317

Appendix-26
(Refer Paragraph: 6.3)
Loss due to illegal use of tractors registered for agricultural purposes in commercial activities
(Transportation of Minor Minerals)

Sl. No.	Name of district	Period	No. of vehicles involved	No. of e-challans issued	Loss of one time tax for commercial activity	Loss of permit fee	Total loss of revenue
1.	DMO, Aurangabad	01/2018 TO 03/2020	629	17,556	1,38,29,540	51,57,800	1,89,87,340
2.	DMO, Banka	01/2018 TO 03/2020	323	7,528	61,29,473	26,48,600	87,78,073
3.	DMO, Bhagalpur	01/2018 TO 03/2020	51	858	9,20,034	4,18,200	13,38,234
4.	DMO, Bhojpur	01/2018 TO 03/2020	446	7,632	81,61,556	36,57,200	1,18,18,756
5.	DMO, Gaya	01/2018 TO 03/2020	1,512	1,44,391	2,80,83,966	1,23,98,400	4,04,82,366
6.	DMO, Kaimur	01/2018 TO 03/2020	271	3,123	40,85,723	22,22,200	63,07,923
7.	DMO, Nalanda	01/2018 TO 03/2020	52	1,529	8,46,814	4,26,400	12,73,214
8.	DMO, Nawada	01/2018 TO 03/2020	222	12,187	38,38,735	18,20,400	56,59,135
9.	DMO, Patna	01/2018 TO 03/2020	57	1,482	13,06,803	4,67,400	17,74,203
10.	DMO, Rohtas	01/2018 TO 03/2020	1,134	30,107	1,84,66,561	92,74,200	2,77,40,761
11.	DMO, Saran	01/2018 TO 03/2020	27	100	5,15,594	2,21,400	7,36,994
12.	DMO, Siwan	01/2018 TO 03/2020	3	132	33,893	24,600	58,493
13.	DMO, Sheikhpura	01/2018 TO 03/2020	100	884	18,68,595	8,20,000	26,88,595
14.	DMO, Vaishali	01/2018 TO 03/2020	3	54	54,820	24,600	79,420
Grand Total			4,830	2,27,563	8,81,42,107	3,95,81,400	12,77,23,507

Appendix-27*(Refer Paragraph: 6.4)***Loss of Government revenue due to non-imposition of fine to lessees for issue of e-challan beyond permissible limit to vehicle**

Sl. No.	Name of District	Type of vehicle	No. of e-challans issued	No. of vehicles involved
1.	DMO, Aurangabad	Tractor	2,835	789
		Truck	30,714	1,953
2.	DMO, Banka	Tractor	7,738	1,602
		Truck	1,59,572	4,014
3.	DMO, Bhagalpur	Tractor	29	22
		Truck	476	147
4.	DMO, Bhojpur	Tractor	24,689	2,818
		Truck	3,24,328	16,502
5.	DMO, Gaya	Tractor	4,478	1,229
		Truck	2,02,123	8,865
6.	DMO, Nalanda	Tractor	776	291
		Truck	32,393	2,260
7.	DMO, Nawada	Tractor	49,467	2,609
		Truck	95,684	5,065
8.	DMO, Patna	Tractor	13,115	2,702
		Truck	6,11,347	25,068
9.	DMO, Rohtas	Tractor	1,098	673
		Truck	24,693	1,631
10.	DMO, Sheikhpura	Tractor	6,361	1,796
		Truck	1,02,488	4,364
11.	DMO, Vaishali	Tractor	132	82
		Truck	8,292	914
12.	DMO, Siwan	Tractor	0	0
		Truck	32	3
13.	DMO, Kaimur	Tractor	0	0
		Truck	244	37
14.	DMO, Saran	Tractor	0	0
		Truck	0	0
Total			17,03,104	85,436

Appendix-28
(Refer Paragraph: 6.5)
Transportation of minerals by unfit vehicles

Sl. No.	Name of DMO	No. of vehicles used	No. of e-challans issued			Total mineral carried			Period in which unfit vehicles use to carry minerals (days)
			Sand	Stone	Brick	Sand (MT)	Stone (MT)	Brick (pcs.)	
1.	DMO, Gaya	14,966	2,69,563	35,550	01	31,77,515	5,94,269	1,500	1 to 17,684
2.	DMO, Bhagalpur	337	4,438	17	0	18,492	260	0	1 to 7,729
3.	DMO, Bhojpur	15,897	2,60,363	0	0	21,69,309	0	0	1 to 16,759
4.	DMO, Aurangabad	4,683	63,541	5,389	0	4,25,516	55,752	0	1 to 9,209
5.	DMO, Kaimur	607	6,000	0	0	24,338	0	0	1 to 3,265
6.	DMO, Nalanda	2,876	32,747	0	0	2,06,392	0	0	1 to 10,242
7.	DMO, Nawada	8,228	1,89,076	7,759	90	10,31,414	1,30,110	1,01,601	1 to 12,726
8.	DMO, Patna	21,058	7,55,459	46	1,554	48,51,619	1,192	21,91,721	1 to 21,328
9.	DMO, Rohtas	4,906	60,773	70	0	3,57,205	272	0	1 to 7,945
10.	DMO, Siwan	2	27	0	0	468	0	0	1,384 to 2,669
11.	DMO, Vaishali	582	6,560	0	7	54,054	0	10,475	1 to 11,069
12.	DMO, Sheikhpura	2,601	46	30,726	0	414	5,58,691	0	1 to 11,975
13.	DMO, Banka	4,721	77,520	0	0	9,34,390	0	0	1 to 11,990
14.	DMO, Saran	1,526	6,475	0	0	78,264	0	0	1 to 16,685
Total		82,990	17,32,588	79,557	1,652	1,33,29,390	13,40,546	23,05,297	

Appendix-29

(Refer Paragraph: 6.6)

Pendency of certificate cases

(₹ in lakh)

District Mining Office	No. of outstanding cases (opening balance as on 01.04.2017)	Amount	Cases filed	Amount	Total cases	Total amount	Cases disposed	Amount	Total outstanding cases (closing balance as on 31.03.2021)	Amount involved in outstanding cases
Aurangabad	1,534	1,072.09	439	732.63	1,973	1,804.72	2	5.81	1,971	1,798.91
Banka	NA*	138.62	NA	NA	NA	138.62	NA	1.44	NA	137.18
Bhagalpur	586	330.50	NA	NA	586	330.50	NA	15.80	586	314.70
Bhojpur	1,335	685.32	243	4,851.86	1,578	5,537.18	25	38.95	1,553	5,498.23
Gaya	1,786	1,594.18	650	2,244.95	2,436	3,839.13	3	37.60	2,433	3,801.53
Kaimur	271	344.40	52	68.30	323	412.70	NA	58.80	323	353.90
Nalanda	2,330	1,186.68	360	969.04	2,690	2,155.72	NA	13.31	2,690	2,142.41
Nawada	2,120	2,307.74	33	31.52	2,153	2,339.26	NA	2.60	2,153	2,336.66
Patna	3,756	2,114.11	216	214.35	3,972	2,328.46	8	9.03	3,964	2,319.43
Saran	2,759	1,331.14	24	55.13	2,783	1,386.27	21	8.84	2,762	1,377.43
Sheikhpura	853	1,696.96	22	20.55	875	1,717.51	NA	NA	875	1,717.51
Siwan	197	175.52	102	273.23	299	448.75	NA	3.56	299	445.19
Vaishali	790	378.14	301	352.17	1,091	730.31	NA	30.11	1,091	700.20
Total			2,442	9,813.73			59	225.85	20,700	22,943.28

* NA = Not available

Glossary of Abbreviations

Glossary of Abbreviations

Abbreviations	Full form
ADM	Assistant Director of Mines
AOI	Area of Interest
BE	Budget Estimate
BM (CPTS)	Bihar Minerals (Concession, Prevention of illegal mining, transportation and storage)
BMMC	Bihar Minor Mineral Concession
BSPCB	Bihar State Pollution Control Board
COs	Circle Officers
CPCB	Central Pollution Control Board
CTE	Consent to Establish
CTO	Consent to Operate
DDM	Deputy Director of Mines
DEIAA	District Level Environment Impact Assessment Authority
DFID	Department for International Development
DFO	District Forest Officer
DMF	District Mineral Foundation
DMFT	District Mineral Foundation Trust
DMOs	District Mining Offices/Officers
DSR	District Survey Report
EC	Environmental Clearance
EIA	Environment Impact Assessment
GIS	Geographic Information System
GoB	Government of Bihar
GoI	Government of India
GPS	Global Positioning System
IBM	Indian Bureau of Mines
LISS-IV	Linear Imaging and Self Scanning Sensor-IV
MGD	Mines and Geology Department
MI	Mines Inspector
MMC	Minor Minerals Concession
MMDR	Mines and Minerals (Development and Regulations)
MoEF	Ministry of Environment and Forest
MoEFCC	Ministry of Environment, Forest and Climate Change
NGT	National Green Tribunal
NIT	National Institute of Technology
NRSC	National Remote Sensing Centre
PAC	Public Account Committee
PMKKKY	Pradhan Mantri Khanij Kshetra Kalyan Yojana
PMU	Project Monitoring Unit

Abbreviations	Full form
PWC	Price Waterhouse Coopers
RF	Registration Fee
RFID	Radio Frequency Identification
RFP	Request for Proposal
RQP	Recognised Qualified Person
RTO	Regional Transport Office
SD	Stamp Duty
SDD	Software Description Document
SEIAA	State Environment Impact Assessment Authority
SOP	Standard Operating Procedure
SPCB	State Pollution Control Board
SSMMG	Sustainable Sand Mining Management Guideline
TPD	Ton per Day
URS	User Requirement Specification
VAT	Value Added Tax

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