

Chapter 3

**Revenue Realisation and
Management of Sand *Ghats***

The Department of Mines and Geology is responsible for the levy and collection of mineral receipts based on the production and dispatch of minerals.

Receipts from minor minerals mainly consist of royalty while other receipts include surface rent²¹, dead rent²², application fee, licence fee, permit fee, interest on belated payment of dues, price of minerals extracted unauthorisedly *etc.*, and in case of auction of mineral blocks, upfront payment, price offer/reserve price are levied in addition to royalty. In this chapter, deficiencies in assessment, levy and collection of royalty from the lessee along with the role of JSMDC in the management of sand ghats for commercial purposes in the light of new Sand Mining Policy introduced in August 2017, have been discussed.

3.1 Trend of Revenue

The details of revenue receipts from minor minerals, total non-tax revenue receipts, total revenue receipts²³ and the percentage of contribution of minor mineral receipts towards non-tax revenue receipts and total revenue are given in **Table-3.1**.

Table-3.1: Trend of Revenue

(₹ in crore)

Year	Total revenue receipts ²⁴ from minor minerals	Total non-tax revenue	Total revenue of State	Percentage contribution of minor minerals to total non-tax revenue receipts (Col. 2 to Col. 3)	Percentage contribution of minor minerals to total revenue receipts (Col. 2 to Col. 4)
1	2	3	4	5	6
2017-18	1,082.44	7,846.67	20,200.11	13.79	05.36
2018-19	683.03	8,257.98	23,010.02	08.27	02.97
2019-20	652.82	8,749.98	25,521.43	07.46	02.56
2020-21	775.09	7,564.01	24,444.09	10.25	03.17
2021-22	697.73	10,030.75	31,321.00	06.96	02.23
Total	3,891.11	42,449.39	1,24,496.65	09.17	03.12

Source: Finance Accounts, GoJ and mineral wise collection report furnished by Department.

The above figures indicate a decline in revenue receipts from minor minerals, which dropped from ₹ 1,082.44 crore in 2017-18 to ₹ 697.73 crore

²¹ Surface rent is payable by a lessee for the surface area used by him for mining operations and it shall not exceed the land revenue.

²² Every lessee of a mining lease has to pay dead rent every year at prescribed rates or royalty in respect of the quantity of minerals removed, whichever is greater.

²³ Own tax revenue receipts plus non-tax revenue receipts.

²⁴ Includes ₹ 765 crore on account of surface rent, dead rent, application fee, licence fee, permit fee, certified/non-certified arrears of major as well as minor minerals.

in 2021-22. Further, the contribution of minor mineral receipts to total revenue receipts of the State also witnessed a sharp decrease falling from 5.36 *per cent* in 2017-18 to 2.23 *per cent* in 2021-22. Although no reasons for this fall in revenue from minor minerals were provided by the Department, Audit observed several instances of loss of revenue to the Government exchequer due to reasons such as short/non-levy of royalty, dead rent, penalty *etc.* as discussed in subsequent paragraphs.

3.2 Assessment, levy and collection of royalty

Under the provisions of JMMC Rules, the holder of a mining lease or permit for minor minerals shall furnish to the State Government such returns and statements within such period as may be specified by it. These returns²⁵ are to be scrutinised by Assistant Mining Officer (AMO)/District Mining Officer (DMO) who shall assess the amount of dead rent, surface rent and royalty payable by the lessees at the end of the prescribed period. The AMOs/DMOs are enjoined to inspect, verify, and check the accounts of minerals. Lack of scrutiny of the prescribed returns resulted in non/short levy and evasion of revenues.

3.2.1 Automation of process and records

The Department implemented (May 2015) an IT based mineral administration system through a software application called the Jharkhand Integrated Mines and Minerals Management System (JIMMS), introduced with the objective of simplifying the complex mining process. Through the introduction of JIMMS, the Department would identify and remove duplicity of the requirement of monthly/annual progress reports and returns filled by the lessees. It, further, facilitate online realisation of mining revenue, quarterly assessment on real time basis for increasing efficiency, monitor demand to prevent illegal mining, help to formulate policies to curb pilferages, issuance of Transit Permit and Pass under tight guidance to avoid human errors on data posting and interconnecting all the reports and returns complying the laws laid. Sixty three leases pertaining to the lease period between December 1999 and March 2030 were examined by Audit to assess the extent of automation of records in JIMMS. The following deficiencies were noticed:

(i) Lease Profile

- **Incomplete profiles:** JIMMS had provisions for lessees for uploading their profile. The DMOs of concerned districts would ensure the completion of the process. In 63 cases, it was noticed

²⁵ As per departmental instructions of June 1970, DMO/AMO is required to check monthly returns periodically and compare it with the entries in Raising and Despatch (RD) register of minerals.

that the lease profiles were incomplete, and missed crucial information such as: MP in nine cases, Forest clearance in 14 cases, EC in six cases, Pollution clearance in seven, survey details in 45 cases, Grant order of lease in 38 cases, Lease deed in 27 cases and Surface right clearance in 28 cases. Thus, the objective of making a robust system that would encapsulate all crucial data/information was not fully achieved.

- **Deficient documents:** Instead of mining plans, in 50 cases, mining plan approval letters, in two cases, lease deed and in two cases, only cover pages, were uploaded. Up to date Pollution clearance was not found uploaded in the system in seven cases.
- **Lease maps:** JIMMS has the provision to generate lease maps on Google Application using coordinates, which could assist the Department in monitoring the mining operation through generated maps. However, in 47 cases, coordinates required were not filled while in 15 cases, coordinates filled were insufficient, preventing the generation of satellite images and hindering monitoring of mining activities.

(ii) **Monthly Returns and assessed figures**

- **Inconsistent balances:** JIMMS has a facility for lessees to upload the monthly return detailing the quantity of opening balance, production and dispatch during the month and closing balance of mineral. In 31 monthly returns of five leases for the period between April 2017 and September 2020, closing balances of previous months did not match with opening balances of subsequent months.
- **Report on Periodic assessment:** Rule 41 of JMMC Rules, 2004 provides for annual assessment of royalty payable by lessees. However, there was non-availability of required tools in JIMMS to carry out this yearly royalty assessment.
- **Module to map applicable rate:** Rates of royalty on stone boulder/gravel/shingle were prescribed on the basis of their uses. Modules on JIMMS were not equipped to identify the uses and levy the applicable rate (refer to **Paragraph 3.2.2**).

(iii) **Permanent Account Number (PAN)**

- **Incorrect PAN:** Lease profile did not have the facility to fill PAN, however, the number was to be filled in the "Mines-wise revenue collected" statement by lessee due to absence of facility to fetch the PAN from lease profile.
- **Changes in PAN:** PAN is a unique number and could not be changed without changing the identity. In three cases, PAN of

lessees was changed two to three times during 2018-19 to 2020-21, which is unusual.

(iv) Generation of unauthentic transportation challans

JIMMS was not foolproof with regard to generation of authentic transportation challans as it allowed the lessee to generate subsequent challans for a vehicle before the expiry of the validity period of previous one (refer to **Paragraph 4.3.1**).

These findings highlight the need for improved data accuracy and completeness in JIMMS to ensure effective monitoring and management of mining activities through this automated system. Due to these constraints, JIMMS could not be comprehensively used for assessment and collection of revenue by the Department.

3.2.2 Short levy of royalty due to application of incorrect rate

Schedule 2 of JMMC Rules, 2004 prescribed royalty on stone boulder/gravel/shingle to be levied at ₹ 132 per m³ (say ₹ 3.74 per cft) whereas royalty on those stone boulder/gravel/shingle which are used for making chips, was to be levied at ₹ 250 per m³ (say ₹ 7.08 per cft).

Audit noticed that the varied rates of royalty were fixed on the basis of end use of the output of quarries but there were no related checks in JIMMS to ensure application of correct rates as per end use. Due to this, the assessment of royalty was solely dependent upon the end use declared by the lessee. Further, for the purpose of royalty assessment, JIMMS recognized stones that were as small as 5 mm as 'stone boulders,' which is not logical.

Due to absence of checks in the JIMMS system on end use, Audit noticed short realisation of royalty and other revenue²⁶ as discussed in following cases:

- In three DMOs, Chatra, Chaibasa and Sahibganj, 25 lessees had dispatched 122.96 lakh cft of stone boulder to 15 crusher units during the period from October 2019 to January 2022, by paying royalty at the rate of ₹ 3.74 per cft. Supply to stone crusher clearly indicates that the boulders were to be used for making chips hence, as per applicable rates specified, royalty should have been ₹ 7.08 per cft. Payment of royalty at lower rate resulted in short levy of royalty and District Mineral Foundation Trust (DMFT)²⁷ contribution of ₹ 5.35 crore.

²⁶ Rule 6 of JDMFT Rules, 2016 provides for collection of contribution to DMF fund in the following manner: 30 per cent of the royalty for the existing leases which are not granted through auction; and 10 per cent of the royalty for leases which are granted through auction.

²⁷ MMDR Act, 1957 (Section 9B, 15(4) and 15A) provides that the State Governments shall establish a non-profit trust to be called the District Mineral Foundation Trust (DMFT) in districts affected by mining related operations. All mining lessees will contribute to the DMFT funds at certain rates.

- In DMO, Pakur, an irregularity was detected by the Audit where five lessees exploited an ambiguity in the system due to overlapping size ranges (0-150 mm) in the JIMMS dropdown menu for both stone chips and stone boulders. They dispatched 50.24 lakh cft of stone boulder with sizes between 40 mm and 60 mm and paid royalty at ₹ 132 per m³ (i.e., ₹ 3.74 per cft). However, as per Bureau of Indian Standards IS 383:2016, stone of this size was categorised as single size aggregate (chips). As such, the lessee was required to pay royalty at ₹ 250 per m³ (₹ 7.08 per cft) instead of ₹ 3.74 per cft. This highlighted a potential revenue loss of ₹ 2.18 crore (under the head royalty and DMFT) due to incorrect classification.

Thus, due to the systemic error in JIMMS, identified during Audit, the lessees gained from undue benefit of ₹ 7.53 crore (₹ 5.35 crore + ₹ 2.18 crore).

3.2.3 Non-realisation of dead rent

Under the provisions of Rule 29 of JMMC Rules, 2004, every lessee of a mining lease must pay dead rent every year at prescribed rates or royalty in respect of the quantity of minerals removed, whichever is greater. Further, Rule 29(3)(2) provides that dead rent for the current financial year was payable within a period of 15 days from execution of lease deed and thereafter, annual dead rent was payable by 28th February in advance.

Scrutiny of records of four DMOs²⁸ revealed that 15 minor mineral lessees had not paid dead rent of ₹ 2.23 crore for the period between March 2016 and March 2022. Audit observed that the DMOs could not monitor the dues of dead rent from these lessees. Further, the DMOs neither initiated any action to get the outstanding dead rent deposited nor did they forfeit the security deposit. The JIMMS also did not have a provision to automatically generate demand for dead rent on due date. This resulted in non-realisation of dead rent of ₹ 2.23 crore.

3.3 Production beyond limit of Mining Plan/Environmental Clearance/Consent to Operate

Rule 54(6) of JMMC (2nd Amendment) Rules, 2017 states that any person, agent, manager or contractor alleged as illegally mining would be liable to pay as penalty, double (previously single rate applicable up to 11 December 2017) the price of mineral so mined. Rule 34A(1) read with Rule 34E(1) of JMMC Rules, 2004, stipulates that mining operations will be carried out in accordance with the approved Mining Plan. Further Hon'ble Supreme Court in its decision (August 2017) in "Common Cause Case" held that any person, agent, manager or contractor who extracts any mineral beyond the

²⁸ Chaibasa, Dhanbad, Pakur and Sahibganj.

limit prescribed by the competent authority will also be held responsible for unlawful/unauthorized mining and such act would attract a penalty for illegal mining as per prevailing Act/Rules.

Scrutiny of Mining Plan/EC/CTO and Form-K submitted by lessees, for production and dispatches revealed that in four districts²⁹, 26 lessees of minor minerals had extracted minerals beyond permissible limits between April 2014 and July 2023 as summarized in **Table-3.2**.

Table-3.2: Details of extraction of sand and stone beyond permissible limits

Districts	Mineral	No. of leases	Quantity Extracted (in lakh m ³)	Permissible Limit* (in lakh m ³)	Excess Extraction (in lakh m ³)	Penalty Amount (₹ in crore)
Sahibganj	Stone	08	23.23	13.96	9.26	58.00
Pakur	Stone	12	43.38	20.23	23.15	144.91
Dhanbad	Sand	01	3.43	3.22	0.21	0.45
Chatra	Stone	05	0.59	0.00 ³⁰	0.59	1.85
Total		26	70.63	37.41	33.21	205.21

*Limits permitted in MPs/ECs/CTO.

Source: information available in records of DMOs.

It is evident from the above table that against the permissible quantity of minerals of 37.41 lakh m³, 26 lessees extracted 70.63 lakh m³ of sand and stone which resulted in excess extraction of 33.21 lakh m³ of minor minerals beyond permissible limits and that should have been reckoned as illegally mined minerals as per Hon'ble Supreme Court Orders of August 2017. Hence, these lessees were liable to pay penalty amounting to ₹ 205.21 crore for unlawful/unauthorized extraction of minerals. However, DMOs of respective districts did not impose and collect the penalty.

3.4 Management of Sand Ghats by JSMDC

Sand mining policy in Jharkhand

In compliance of Supreme Court's ruling of Deepak Kumar v/s State of Haryana (SLP No. 19629 of 2009) and subsequent MoEFCC's guidelines, the State Government notified (August 2017)³¹ the Jharkhand State Sand Mining Policy, 2017 for effective guidance and management of sand mining in the State, in an environmentally sustainable and socially responsible manner. The objective of the New Sand Mining Policy was to fulfil the developmental needs of the State as well as to ensure regular and adequate supply of sand at a reasonable price for common people.

As per New Sand Mining Policy, the management of sand ghats of Category-2 in the State was handed over by the Government to the

²⁹ Chatra, Dhanbad, Pakur and Sahibganj.

³⁰ The lessees conducted mining activities without obtaining 'Consent to Operate', hence, the total production of minerals was illegitimate.

³¹ Notification number 1905 dated 16 August 2017.

Jharkhand State Mining Development Corporation (JSMDC) for a period of five years from 16 August 2017, which was later extended for another three years from August 2022 by a Cabinet decision (September 2022).

The salient features of the New Sand Mining Policy were as follows:

- District Survey Report (DSR)³² for each district shall be prepared by a committee headed by the Deputy Commissioner-cum-Chairperson, of the District Environment Impact Assessment Authority (DEIAA). The State Government shall issue necessary guidelines or directives as and when required for an effective preparation of DSR.
- Identification of the sand available in different water streams of rivers, such as 1st, 2nd, 3rd and onwards would be done by the District Survey Committee, based on its size and capacity. Based on DSR, the Survey Committee shall categorize the sand in 1st order and 2nd order stream/river as Category-1 and 3rd order and above as Category-2.

The Policy also defined the management structure of streams (henceforth sand *ghats*) of different orders. Management details of the two Categories are given in **Table-3.3**.

Table-3.3: Details of management of Category-1 and Category-2 sand ghats

Category	Category-1	Category-2
Management by	<i>Gram Panchayat</i> /Local Self Government	Allocated to JSMDC for a minimum period of five years or more as decided by the Government.
Utilisation Purpose	Non-commercial purpose (Sand would be free from taxes and royalty, only a nominal maintenance charge shall be levied by GP/LSG)	For Commercial purpose (Sand sold by JSMDC on price decided by JSMDC in consultation of State Government)
Statutory Clearance	Exempted from EC, no mechanised lifting, no storage of sand.	JSMDC to obtain EC, Mining Plan, or any other statutory requirement for sand mining, storage and sale.
Monitoring	DC to ensure no commercial/illegal extraction of sand.	Adoption of appropriate technology such as RFID/GPS tracking of vehicles, CCTV surveillance, central monitoring, cashless online sale <i>etc.</i> to prevent illegal mining and transportation of sand.

³² DSR for sand mining is prepared at an interval of every five years with an objective to identify the mineable area, non-mineable area and to calculate the annual rate and time of replenishment.

3.4.1 Identification of sand *ghats* and stock yard

The Directorate of Mines provided JSMDC with a list of Category-2 sand *ghats* (November 2017) numbering a total of 177 *ghats* in 19 districts. This was later updated (March 2022) to 608 *ghats* in 23 districts. Upon reviewing JSMDC's database for these 608 *ghats*, it was found that it contained only basic information like name, district and area to be covered. There was no information about inclusion of the listed *ghats* in the DSRs of concerned districts. JSMDC could not provide the DSRs of 21 districts (except Dhanbad, Pakur and Simdega) to Audit. These DSRs would have included crucial details such as mineable quantity, replenishment rate and time, compatibility with EC norms required for sand *ghats* etc.

Further, Audit compared the updated list of 608 sand *ghats* (having area of 4,859.96 Ha.) with the initial list of 177 sand *ghats* and observed that there was mention of 37 *ghats* in initial list which were omitted in the updated list. Reasons for such omissions were neither found on record nor were these provided by the Department of Mines & Geology. Further, 389 sand *ghats* for which tenders were invited for empanelment of MDO by JSMDC (during the period December 2017 to October 2019) consisted of 95 sand *ghats*, which were not in the updated list of 608 *ghats* as assigned by DMG to JSMDC. The inconsistencies in the information about the available number of sand *ghats* to be managed highlight the casual approach of the Department as well as JSMDC in management of sand *ghats*. This also contributed to the low rate of operationalization of sand *ghats* as indicated in **Table-3.4**.

- **Timeline *vis-à-vis* achievement for operationalisation of sand *ghats*:** JSMDC, that was now responsible for the management of sand *ghats*, was to select (i) agencies for preparation of MP/EC; (ii) Mines Developer and Operators (MDO) for mining; and (iii) an IT solution developer for RFID/GPS tracking of vehicles used for transportation of sand, CCTV surveillance, central monitoring and facilitating cashless online sale. JSMDC decided to commence sand production from Category-2 sand *ghats* from 1 March 2018.

During the course of Audit, it was noticed that JSMDC could not achieve the targets as per the timelines set for operationalisation of sand *ghats*. Timelines set by JSMDC and corresponding achievement are outlined in **Table-3.4**.

Table-3.4: Timeline for operationalizing sand ghats vis-à-vis actual achievement (as of 31 October 2023)

Task	Action by	Timeline	Achievement by JSMDC against 608 identified sand ghats ³³	Final date of achievement for sand ghats in Col. D	Delay in achievement	Percentage achievement
A	B	C	D	E	F	G
Identification of stockyard for sand ghats	JSMDC	15 December 2017	21	February 2020	2Y 1.5M	3.45
Preparation of MP and EC	Selected agency	15 December 2017	22	July 2019	1Y 6.5M	3.62
Approval of MP and EC	Selected agency	15 March 2018	22	September 2019	1Y 5.5M	3.62
Award of work order to MDO for sand mining	JSMDC	15 January 2018	21	March 2020	2Y 1.5M	3.45
Network installation of sand ghat and user acceptance test/Go live	Selected agency	31 May 2018	21	Network installation, Cashless online sale achieved for 21 but CCTV surveillance and central monitoring not established		

Source: Compiled by Audit based on the records of JSMDC.

The table indicates that JSMDC achieved the set targets in only a limited number of sand ghats, ranging from 3.45 to 3.62 *per cent* of the total target. Even for these few sand ghats, there were delays ranging between 18 and 26 months for various tasks such as selection of agency for preparation of MP/EC, selection of MDOs for operation of ghats *etc.* Further no progress in any of these tasks was observed after March 2020. In essence, JSMDC managed to operationalise only 21 out of the 608 ghats of Category-2 assigned to it by the Department of Mines and Geology (DMG).

This lack of progress and non-achievement of targets could be further attributed to the following factors:

- **Preparation of MP and EC:** In January 2018, JSMDC empanelled five agencies³⁴ to prepare MPs and EC proposals³⁵ for sand ghats. During the period January 2018 to November 2019, JSMDC assigned 167 ghats to these agencies for preparation of MPs/EC proposals. Out of these 167 proposals, the agencies prepared and submitted the proposals for only 36 cases and could obtain approval to MPs and ECs in respect of only 22 ghats. Thus, MP and EC were obtained only for 22 out of 167 ghats (*i.e.*, 13.17 *per cent* of proposals) assigned to these agencies. Reasons for assigning only 167 ghats to the agencies for preparation of MPs and EC

³³ Yearwise list of identified sand ghats was not made available by JSMDC/Department.

³⁴ (i) Crystal Consultants, (ii) ENV Developmental Assistance Systems Pvt. Ltd., (iii) Enviro care Technocrats Pvt. Ltd, (iv) Kalyani Laboratories Private Ltd. and (v) Overseas Min Tech Consultant & Sathi Planners Pvt. Ltd.

³⁵ The procedure for grant of ECs from the concerned authorities is detailed in Paragraph 4.2 of the report.

proposals against the 608 *ghats* assigned to JSMDc by DMG and preparation and submission of MPs and EC proposals in respect of only 36 *ghats* could not be ascertained in audit. JSMDc could also not provide any justification for inaction in respect of the remaining 441 *ghats*.

- **Award of work order to MDOs for sand mining:** The JSMDc floated tenders for 389 sand *ghats* between December 2017 and October 2019 to select the MDOs responsible for managing the entire sand *ghat* operation, including mining, transportation, stocking, and loading of sand.

Although preferred bidders were selected for 89 sand *ghats*, agreements were executed for only 26 sand *ghats*, indicating a low conversion rate of preferred bidders to MDOs. Notably, the reason for the low conversion rate was the availability of ECs for only 22 sand *ghats*. However, only 21 sand *ghats* could be made operational.

In a bid to streamline operations, JSMDc consolidated responsibilities in September 2021, assigning both mining plan preparation and execution to a single agency, the MDO. Consequently, JSMDc empaneled 130 MDOs by July 2022. However, despite this effort, none of the sand *ghats* became operational beyond the existing 21.

Thus, JSMDc could not ensure timely preparation of MPs to obtain ECs from SEIAA and proceeded with the process for selection of MDOs without valid MPs and ECs, rendering the entire process unproductive.

On this being pointed out (December 2023), management of JSMDc replied (July 2024) that due to various legal issues, the number of operational sand *ghats* decreased. At present all the sand *ghats* (21 sand *ghats*) are operational.

3.4.2 Irrational deployment of IT solution developer

Consortium of M/s M-Junction Service Ltd. and M/s Telematics 4 U Services Pvt. Ltd. was selected (September 2018) for providing required IT solution in 200 sand *ghats* for five years (at a cost of ₹ 59,535 per *ghat*³⁶ per month for first three years and ₹ 54,610 per *ghat* per month for next two years). The agreement also required the agency to deploy two persons (at ₹ 0.51 lakh per month- variable cost) at each sand *ghat* for bill generation and eight persons (₹ 4.20 lakh per month- fixed cost) at the Ranchi headquarters for call center and technical support.

The agency provided IT solutions for up to 16 *ghats* during 2018-22. Furthermore, the JSMDc operated a maximum of 16 sand *ghats* in a year and garnered sale proceeds amounting to ₹ 12.09 crore (excluding royalty

³⁶ Cost of Central monitoring system at State and district level was distributed among 200 *ghats*.

and other associated fees and cess paid to the Government) during 2018-22, while the IT service provider claimed bills amounting to ₹ 4.57 crore for the same period. As such, the expenditure incurred on IT solutions ranged from 31.95 *per cent* to a maximum of 59.87 *per cent* of the proceeds from sand sales in a year, as detailed in **Table-3.5**.

Table-3.5: Year wise sale proceeds of sand and payment made to the agency

(₹ in lakh)

Period	No. of sand ghats operational	Receipt from Sand sale	Bill claimed	Amount paid	Percentage of claim (Col. 4 to Col. 3)
1	2	3	4	5	6
2018-19	3	47.81	20.85	20.42	43.61
2019-20	16	173.92	104.13	103.52	59.87
2020-21	15	555.59	177.53	177.53	31.95
2021-22	12	431.70	154.41	104.82	35.77
Total		1,209.02	456.92	406.29	

Source: Statement provided by JSMD C.

Audit observed that JSMD C had prepared MP and obtained EC for only 22 sand ghats and maximum 16 ghats were operational in a year during 2018-22, but JSMD C made arrangements for IT solutions for operation of 200 ghats and incurred enormously high expenditure on it. JSMD C could have revised the timeline for network installation of sand ghat and user acceptance test/Go live or implemented IT solutions on a smaller scale and deployed lesser number of IT personnel at Headquarter level. In the absence of this, expenditure incurred solely on IT solutions exceeded one-third of the proceeds from sale of sand.

3.4.3 Potential loss of revenue due to non-operationalisation of sand ghats

As a deemed lessee for operational ghats, JSMD C was required to follow the procedures outlined in the JMMC Rules and pay dead rent ₹30,000 per acre per year or royalty in respect of the quantity of sand removed, whichever was greater.

Out of 608 sand ghats, JSMD C attempted to operate 389 ghats but successfully operationalized only 21 ghats. Thus, 368 sand ghats remained non-operational during 2017-22. Due to 368 non-operative ghats, the State Government suffered potential losses of ₹ 70.92 crore³⁷ for these ghats (with an area of 9,782.55 acres) during November 2019 to March 2022.

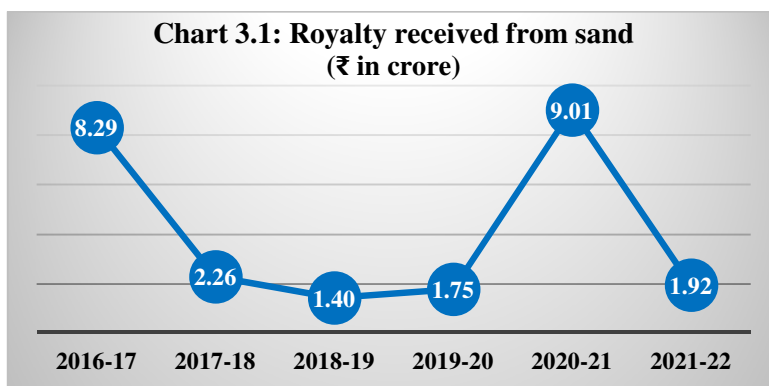
³⁷ ₹ 70.92 crore = 9,782.55 acres x ₹ 2,500 (₹ 30,000/12) acre per month x 29 months (November 2019 to March 2022) i.e., after last of month of tender notice for selecting MDO (October 2019).

3.4.4 Analysis of the income and expenditure in operation of sand ghats

As per Department of Industries, Mines and Geology, GoJ notification dated 5 October 2017, JSMDC was entitled to a 15 *per cent* agency commission charge on the sale proceeds from the management of Category-2 sand ghats. After deducting all the expenditures related to operation and management of sand ghats, JSMDC was to pay back the remaining amount collected from sales to the Government exchequer.

3.4.4.1 Trend of revenue from Sand Mining

The chart below represents the royalty received by the Department on account of sand mining in the State, for the years 2016-22. It is evident from the chart below that the amount of royalty decreased significantly, post the handover of sand mining leases to JSMDC. There was a sudden increase in royalty in the year 2020-21, the reasons for which were neither evident in the records nor intimated by the Department.



Source: Royalty data provided by the Department.

Data on mineral-wise royalty receipts of the State was gathered from the Mines and Geology Department for the period 2017-22. A comparison was made between the royalty received from sand by the Department and the royalty remitted by JSMDC against sale of sand during the same period. Discrepancies observed are presented in **Table-3.6**.

Table-3.6: Royalty received from sand as per Department and royalty paid by the JSMDC

(₹ in lakh)

Period	As per Department (Royalty receipt from sand)	As per JSMDC (Royalty remitted against sale of sand)	Differences
2017-18	226.87	0.00	No sand ghat being operated by JSMDC during the period
2018-19	140.47	9.64	130.83
2019-20	175.67	38.81	136.86
2020-21	901.46	140.89	760.57
2021-22	192.02	109.47	82.55

Source: Royalty data provided by the Department and JSMDC.

From October 2018, the sand *ghats* (Category-2) of the State were being solely operated by JSMDC. Hence, royalty received from the sand as shown by the Department should have been the same as shown by the JSMDC. However, there were substantial discrepancies in the figures of royalty during the period 2019-22, ranging between ₹ 82.55 lakh and ₹ 760.57 lakh. No justification/reasons for the same were provided to Audit. In the absence of required information, Audit could not analyse the reasons for these variations.

3.4.4.2 JSMDC sustained loss in operation of sand *ghats*

Year wise proceeds obtained from the sale of sand by JSMDC and provision for payments made in the annual accounts of JSMDC during the period 2018-22 are depicted in **Table-3.7**.

Table-3.7: Sale proceeds of sand and provision of payment/payment made

(₹ in lakh)

Period	No. of operative sand ghats (Dispatch)	Sale proceeds without GST	Sales commission @ 15 per cent sale proceeds excluding royalty, DMFT, E. Cess & MGMT to JSMDC	Provision of payment to agency selected for preparation of MP/EC, MDO and IT service provider	Royalty, DMFT, E. Cess & MGMT	Profit to be deposited in State exchequer
2018-19	3	60.78	7.17	90.04	12.96	(-) 49.39
2019-20	14	225.97	26.09	265.98	52.05	(-) 118.15
2020-21	15	744.12	83.34	381.30	188.53	90.95
2021-22	11	578.19	64.75	322.66	146.49	44.29
Total		1,609.06	181.35	1,059.98	400.03	(-) 32.30

Source: JSMDC Annual Accounts.

It is evident from the table that, between 2018 and 2022, JSMDC dispatched sand from a maximum of 15 *ghats* in a year, generating ₹ 16.09 crore in sale proceeds. After deducting 15 per cent commission (₹ 1.81 crore) and statutory deductions (₹ 4.00 crore), JSMDC incurred direct expenses of ₹ 10.60 crore. Despite generating revenue, JSMDC therefore sustained a loss of ₹ 32.30 lakh, indicating operational inefficiency.

Audit estimated JSMDC's revenue potential with 60 per cent of available reserve as production output (as envisaged in the Sustainable Sand Mining Management Guidelines 2016 *i.e.*, annual mineable reserve in ECs) between April 2020 and March 2022. Based on this, had JSMDC efficiently operated all 21 sand *ghats*, it could have remitted profits of ₹ 11.51 crore to ₹ 12.25 crore³⁸ annually to the State Government. However, JSMDC's production output was only 28.53 to 31.50 per cent of desired production

³⁸ Profit = (Desired production per year x rate of sand per cft) – (liability on account of statutory deductions, payment to MDOs/IT solution provider, commission to JSMDC); Desired profit for 2020-21 = (407.82 lakh cft x ₹ 7.5 per cft) - ₹ 1,907.50 lakh = ₹ 1,151.15 lakh; For 2021-22: (407.82 lakh cft x ₹ 7.5 per cft) - ₹ 1,833.94 = ₹ 1,224.71 lakh.

during this period. Thus, this suboptimal performance resulted in lost revenue opportunities. The inefficient management and operation of sand *ghats* by JSMDCL led to financial losses of ₹ 32.30 lakh during 2018-22.

3.4.5 Depleting reserve in non-operational *ghats*

An analysis was carried out of the trend of sand accumulation due to sedimentation process in non-operational Category-2 sand *ghats* for five years period. Audit compared the total reserve (as provided in DSRs 2017-22 and DSRs 2022-27) of 14 sand *ghats* of three districts as detailed in Table-3.8.

Table-3.8: Trend of sedimentation process in non-operational sand *ghats*

Sl. No.	District	Sand <i>ghat</i>	DSR 2017-22		DSR 2022-27	
			Area (in Ha.)	Annual Mineable reserve (MT)	Area (in Ha.)	Annual Mineable reserve (MT)
1	Dhanbad	Lohapatti	16.00	2,16,000	45.00	4,47,363
2	Dhanbad	Bhowra	12.00	1,62,000	12.79	54,079
3	Dhanbad	Chas-Nalla	7.20	97,200	30.63	62,357
4	Dhanbad	Jajalpur	3.00	40,500	9.81	77,107
5	Pakur	Babudha	10.49	7,18,794	9.21	1,91,824
6	Pakur	Rolagram	14.94	7,61,076	8.09	62,316
7	Pakur	Barasinghpur	20.01	10,57,050	11.60	1,28,134
8	Pakur	Ganpura	7.08	2,46,645	6.00	58,478
9	Pakur	Benakur	9.76	6,87,083	7.75	68,225
10	Pakur	Ghurani	10.96	3,85,823	3.60	56,240
11	Simdega	Gorra	4.43	1,79,314	5.80	48,139
12	Simdega	Konoriya	4.04	1,63,701	4.00	34,584
13	Simdega	Ramjal	4.84	1,96,182	5.92	21,323
14	Simdega	Latakai	4.71	1,90,958	12.00	1,01,477
Total			129.46	51,02,326	172.20	14,11,646

Source: Compiled by audit based on records of JSMDCL.

It is evident from the table that there were 14 sand *ghats* having total area of 129.46 Ha. with total reserve 51.02 lakh MT *per annum* as per DSR 2017-22. In DSR 2022-27 though, the total area increased from 129.46 Ha. to 172.20 Ha., but the total reserve decreased from 51.02 lakh MT to 14.12 lakh MT *per annum*.

A huge decrease (72.33 *per cent*) in annual reserve in non-operational sand *ghats* could not be attributed to only a geographical phenomenon (washing away/ redistribution of reserve), and possibility of illegal mining in these non-operational *ghats* during the period cannot be ruled out. Further scrutiny of updated DSR (2023) revealed that there were 442 potential sand *ghats* of Category-2 in existence, which were not being operated. A similar study of sand reserves in these inoperative sand *ghats* may reveal possibilities of illegal mining on a larger scale.

3.5 Recommendations

The Government/Department may

- *assess reasons for decrease of sand reserves in inoperative sand ghats and take comprehensive measures to augment Government revenue from minor minerals by operationalizing sand ghats;*
- *fix responsibility on erring officials who did not verify rates of royalty applicable to boulders dispatched to crushers for making chips and adhere to provisions of the Act/Rules for collection of correct royalty and penalty; and*
- *make concerted efforts to rectify shortcomings of JIMMS including formulating a mechanism for submission of Mining Plans through JIMMS for transparency and documentary evidence.*

