

Chapter-2

**Systems and procedures for
approval of mining concessions**

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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;

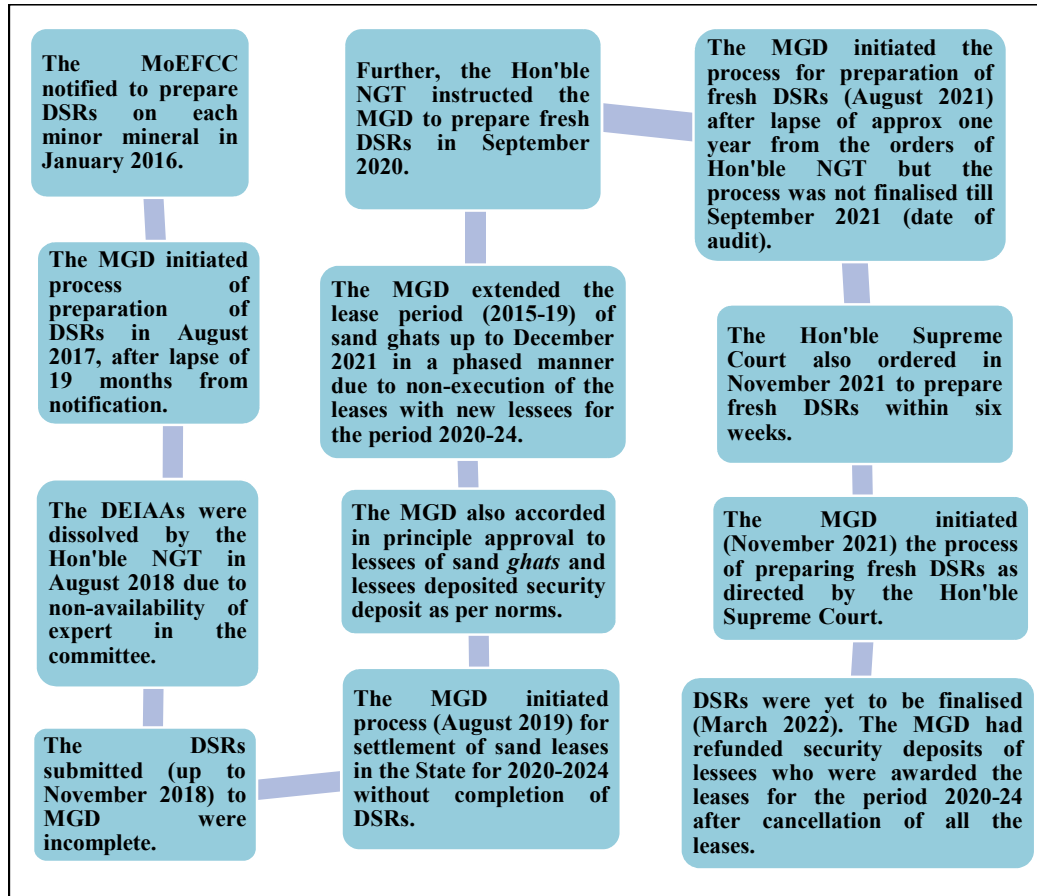
- Identification of areas of aggradations or deposition where mining can be allowed;
- Identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited; and
- Calculation of annual rate of replenishment and allowing time for replenishment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

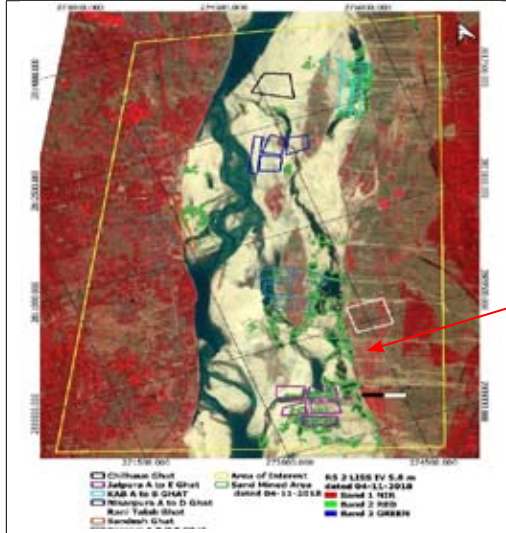


Figure 4: LISS-IV Satellite image analysed by NIT, Patna as sand *ghat* Rani Talab demarcated by white polygon shown away from riverbed.



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

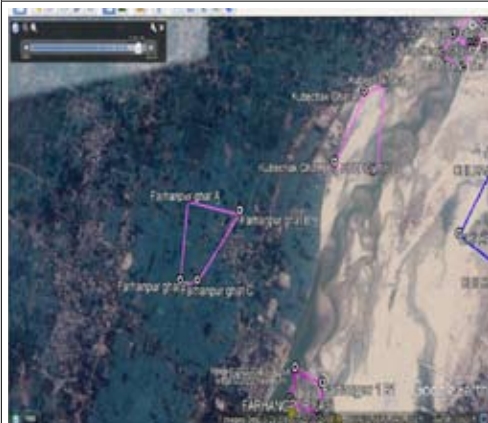


Figure 6: Screenshot satellite image of Farhangpur sand *ghat* in Bhojpur district shown vegetation area.



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

³ Bhojpur, Patna and Rohtas.

⁴ Bhojpur and Patna.

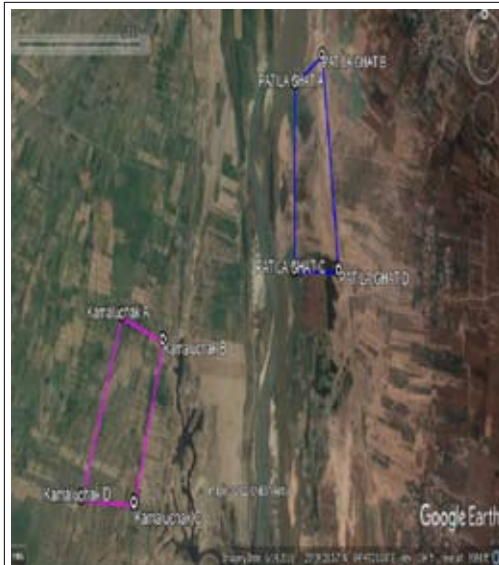


Figure 8: Screenshot satellite image of Kamluchak sand ghat in Bhojpur district shown away from riverbed.



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:**

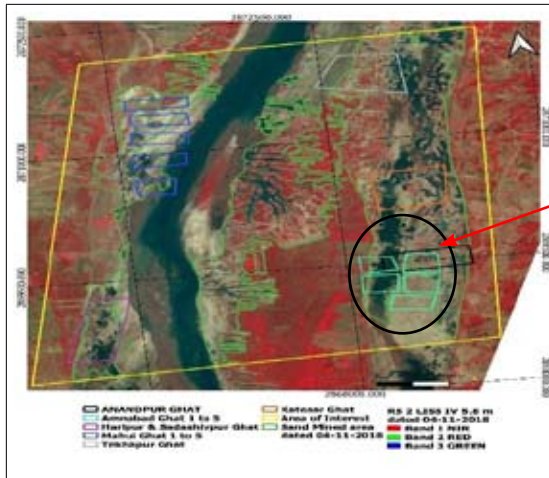


Figure 12: NIT, Patna also analysed overlapping of Amnabad into Anandpur sand *ghat* as shown above.



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

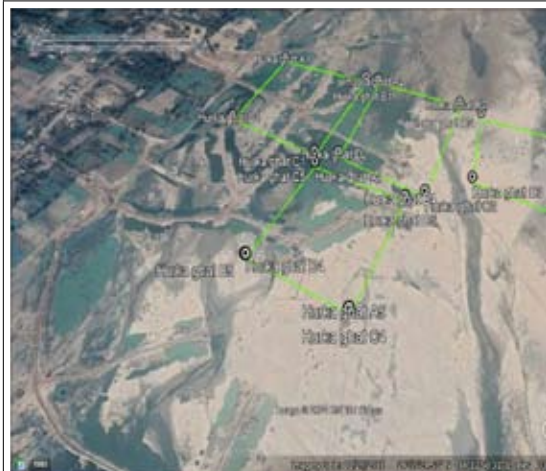


Figure 14: Screenshot satellite image of Hurka sand *ghat* in Rohtas district, coordinates of Block 4 and 5 shown same.



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*.

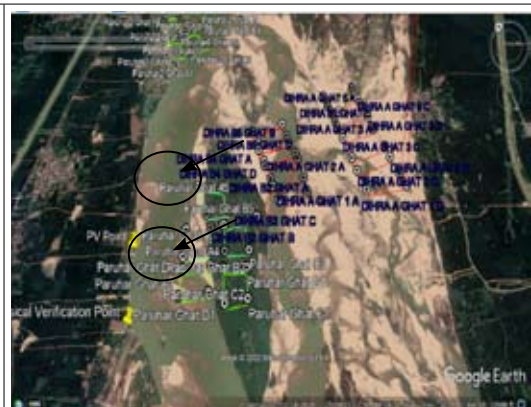


Figure 17: Physical verification point shown in screenshot of satellite images.



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.

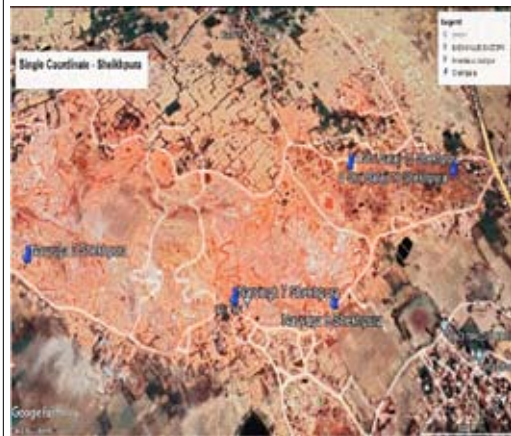


Figure 20: Single coordinate of Sheikhpura district.



Figure 21: Single coordinate of Nawada district.

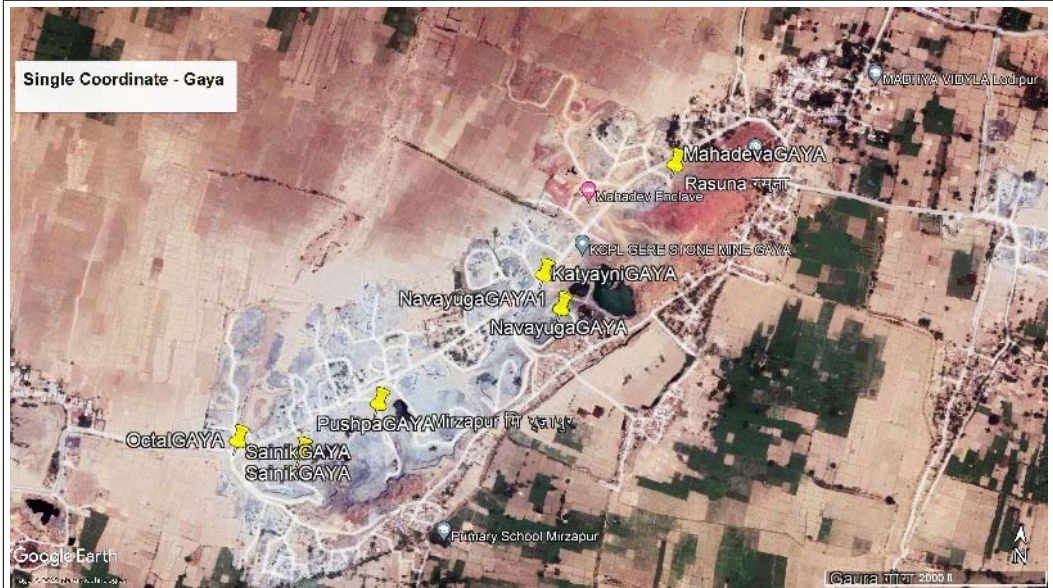


Figure 22: Single coordinate of Gaya district (Stone).

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**:

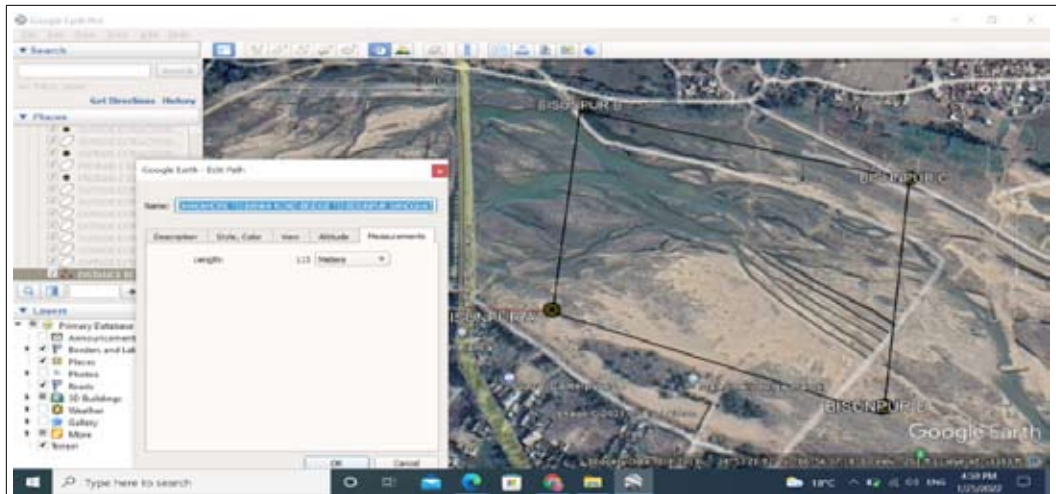


Figure 23: Bisunpur sand ghat of Banka district, area allowed for mining was only 113 metres away from road bridge.

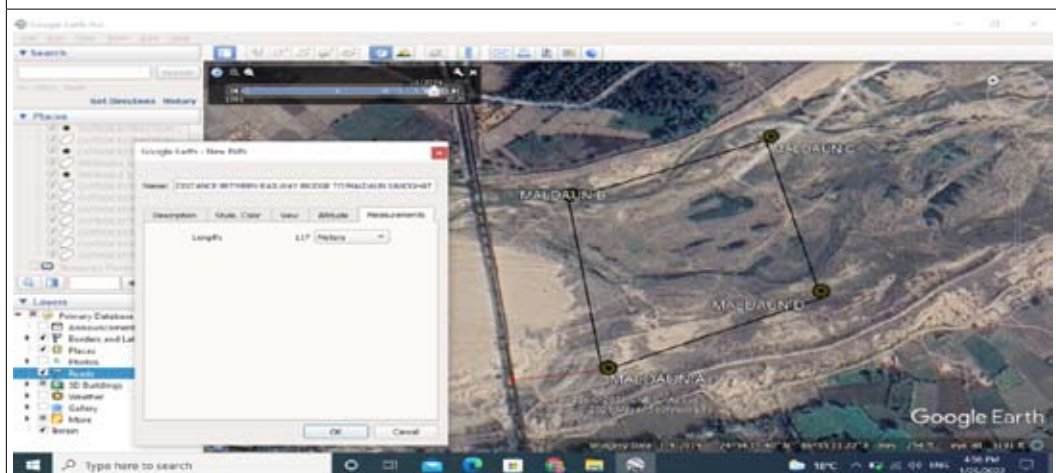


Figure 24: Maldaun sand ghat of Banka district, area allowed for mining was only 117 metres away from rail bridge.

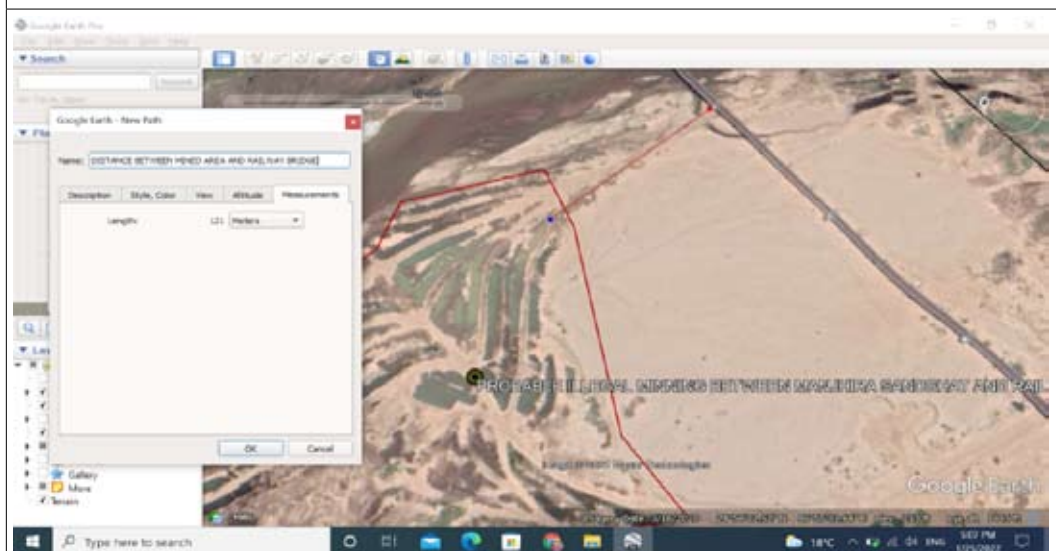


Figure 25: Illegal mining activities carried out only 121 metres away from railway bridge near Majhoni sand ghat.

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.

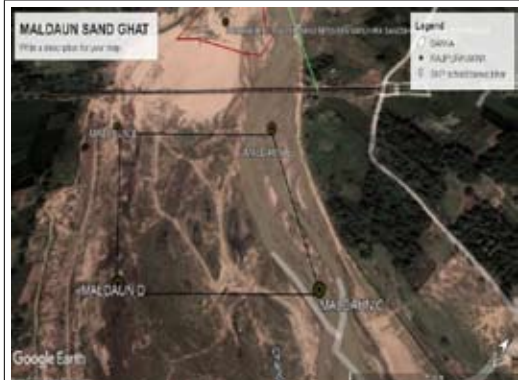


Figure 30: Maldaun sand *ghat* area allowed for mining was in middle of the river.



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 Borwa 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.