CHAPTER-IV

ILLEGAL MINING

Summary

The Uttar Pradesh Minor Mineral (Concession) Rules does not prescribe what is price of mineral and royalty in cases of mining areas leased out through auction. The Department ignored the bid rate and levied the royalty and price of mineral at the base rate, not revised since January 2016, from lessees who had illegally excavated minerals from the lease area and/or areas neighbouring the sanctioned lease area, which resulted in deprivation of potential revenue to the Government. Illegal mining led to violation of the terms and condition of environment clearance and sand mining guidelines.

There was lack of input control mechanism in the software for monitoring the e-transit passes. Lessees generated e-MM-11 forms for vehicles not fit for transportation of minerals, for vehicles having ineligible/fake registration numbers and in prohibited months. Distance mentioned in e-MM-11 forms was much more than actual distance, which indicated risk of transportation being done multiple times on the same e-MM-11 form by single payment of royalty.

Examination of the selected sites of leases from Google Earth revealed instances where minerals were excavated outside lease area and without grant of mining lease. Lessees did not follow the sand mining guidelines and excavated the sand with the help of excavators.

Audit used satellite imagery from Google Earth and found that norms for establishment of brick kilns such as, prescribed distance from other brick kilns, residential area, school/college, hospital, orchard, Eco Sensitive Zone (ESZ) and from historical monuments were not followed by the brick kiln owners.

The Ministry of Mines, GoI advised the State Governments to implement the Mining Surveillance System for minor minerals within their States for curbing instances of illegal mining. Though the State Government implemented the MSS, this system may be used effectively to prevent the illegal mining in the State. The State Government did not impose any cess on mining lease holders for expenditure incurred on technological intervention.

4.1 Introduction

Section 21(5) of the MMDR Act, 1957 stipulates that whenever any person raises, without any lawful authority, any mineral from any land, the State Government may recover from such person, the mineral so raised, or, where such mineral has already been disposed of, the price thereof, and may also recover from such person, rent, royalty or tax, as the case may be, for the

period during which the land was occupied by such person without any lawful authority.

Further, Rule 3 of the UPMMC Rules, 1963 provides that no person shall undertake mining operations in any area within the State of any minor mineral to which these rules are applicable except under and in accordance with the terms and conditions of mining lease or mining permit granted under these Rules.

Rule 57 of the UPMMC Rules, 1963 prescribes penalty for violation of the above provisions and provides for punishment upon conviction with imprisonment for a term which may extend up to six months or with fine which may extend to ₹ 25,000, or with both. Government vide order dated 18 May 2017 revised the penalty provisions of the said Rule to imprisonment for a term which may extend up to five years or with fine which shall not be less than of ₹ two lakh per hectare and which may extend to ₹ five lakh per hectare of the area, or with both.

It is further provided under Rule 41(h)(1) of the UPMMC Rules, 1963 that the lessee shall not do any mining operation beyond the depth of three meters or water level whichever is less in the river bed and no mining shall be carried out in the safety zone so worked out by the district officer; provided that no mining shall be carried out into the water stream with the help of suction machine or the lifter etc.

Rule 21(2) of the UPMMC Rules, 1963 prescribes the amount of royalty to be levied and states that royalty of minerals shall not be more than 20 *per cent* of pit's mouth value[67] of minerals. The Government, in its order dated 15 October 2015, also clarified that the price of minerals is ordinarily five times of the royalty.

Implementation of the Integrated Mining Surveillance System (iMSS) was initiated in the year 2020 with facilities of drone surveillance of areas of complaints of illegal mining, registration of mineral transporting vehicles, Radio Frequency Identification (RFID) tags and weigh bridges along with Pan Tilt Zoom (PTZ) Camera at the exit of mines and their integration with State Command Centre. As on April 2022, 80,000 vehicles have been registered under the iMSS, 441 Weigh bridges have been installed in the mining areas, 75 hand-held machines have been provided to the Mining Officers to check illegal transportation and 16 automated check-gates have been installed.

The Mine Mitra portal is an initiative of the DGM. The portal is designed to provide a digital platform for online submission and monitoring of mining related activities such as generation and validation of transit passes, submission and approval of Mining Plan, issue of storage licenses and payment of royalty and regulating fee.

The Mining Plan approved by DGM and EC granted to lessee mentions the area demarcated for carrying out any mining activity. Mining operation shall in respect of all minor minerals be undertaken in accordance with the Mining Plan. Further, electronic MM-11 forms (e-MM-11 forms) were introduced for transportation of minerals with effect from 1 August 2017 in place of physical MM-11 forms.

[67] "Pit's mouth value" means the sale price of the minor mineral at the pit head or at the point of production.

The Department provided number of cases of illegal mining/transportation, amount levied and recovered from illegal miners/transporters during 2017-18 to 2021-22, which are detailed in **Table-4.1**.

Table:4.1

Details of number of cases, levied amount and recovered amount from illegal miners/transporters

Year	Number of cases of illegal excavation/Transportation	Levied amount (₹ in crore)	Recovered amount (₹ in crore)
2017-18	10,188	30.45	28.73
2018-19	21,752	98.47	80.86
2019-20	20,348	73.85	48.67
2020-21	21,641	94.51	77.55
2021-22	25,986	138.37	124.89

Source: Information provided by the Department.

Audit examined the records of selected DMOs and DGM. The irregularities noticed by Audit with respect to cases of illegal mining and deficiencies in generation/usage of e-MM-11 forms have been highlighted in succeeding paragraphs.

Audit Findings

4.2 Gaps in Regulatory Framework relating to illegal mining

Rule 23(1) of the UPMMC Rules, 1963 stipulates that the State Government may by general or special order declare the areas which may be leased out by auction. Further, Rule 23(3) stipulates that on such declaration, Chapter-III[68] of the said Rules shall not apply to the area in respect of which the declaration has been issued.

Thus, for any illegal mining the State Government can recover the mineral or its value and relevant royalty as per provisions of Chapter-III. However, for areas which are notified to be leased out by auction, the royalty rate in Chapter-III are not applicable.

Audit analysed the penal provisions under two scenarios: Illegal mining in (a) auctioned areas and (b) areas in the neighbourhood of the auctioned areas. The results of the analysis are given below.

(a) Price of mineral not defined in cases of mining areas leased out through auction

Rule 23(3) of the UPMMC Rules, 1963 stipulates that for auctioned areas Chapter III shall not be applicable. Chapter III prescribes that royalty of minerals shall not be more than 20 *per cent* of pit's mouth value of mineral. On the basis of this, price of mineral is ordinarily taken as five times of the royalty. As the Chapter III is not applicable in cases of mining areas leased out through auction, there is ambiguity as to the manner in which the price of minerals in case of illegal mining shall be determined in such cases. In the absence of suitable provisions for imposing price of minerals, district authorities adopted Chapter III rates of royalty.

[68] Provisions relating to payment of royalty and dead rent for leases which are awarded before e-auction system.

(b) Inadequate quantum of royalty and price of mineral imposed for illegal mining in areas inside/neighbouring the auctioned areas

Audit test-checked lease files of 217 leases in 16 DMOs and noticed that in 11 DMOs[69] where leases had been granted through auction, the investigation team from the district authorities had reported 111 cases of illegal excavation of 10,98,156.37 cu.m. of minor minerals (sand/morrum/gitti) by 65 lessees from inside the lease area and/or areas neighbouring the sanctioned lease area. The district authorities calculated quantum of illegal mining and issued demand notices at base rate[70] of royalty to 65 lessees in 111 cases totalling ₹ 90.28 crore (₹ 15.22 crore as royalty, ₹ 73.55 crore as price of minerals and ₹ 1.51 crore as penalty) for illegal excavation and could recover ₹ 9.18 crore only.

Audit compared the quantum of royalty and price of mineral actually imposed by the District Magistrate and that based on rate discovered through auction. Some illustrative cases are detailed in **Table-4.2**.

Table 4.2
Analysis of penal amounts for illegal mining

(₹ in Lakhs except column 3, 4 and 8)

Sl. No. (1)	Name of the lessee (2)	Quantity of illegal mining (in cu.m.) and name of mineral (3)	Actually imposed by District Magistrate				Based on rate discovered through auction (calculated by Audit)			
			Rate of Royalty (per cu.m.) (4)	Royalty (5)	Price of mineral (6)	Total (7)	Discovered rate of Royalty (per cu.m.) (8)	Royalty (9)	Price of mineral (10)	Total (11)
1.	Sri Manish Chauhan	98,463 (Sand)	65	64.01	320.07	**384.08**	429	422.49	2,112.46	**2,534.95**
2.	M/s Chaudhary Ent Udyog, Prop-Sri Balkrishna Sharma,	9,450 (Morrum)	150	14.18	70.88	**85.06**	901	85.14	425.72	**510.86**
3.	M/s Sai Ram Enterprises, Partner-Sri Chandra Bhushan Gupta	62,072 (Gitti)	160	99.32	496.58	**595.90**	3,010	1,868.37	9,341.84	**11,210.21**
4.	M/s C S Infraconstruction, Prop.-Smt. Pushpa Singh	33,603 (Gitti)	160	53.76	268.82	**322.58**	3,000	1,008.09	5,040.45	**6,048.54**

An analysis of figures in above table indicated that penal demand for illegal mining were based on rates of royalty as given in Chapter III of the UPMMC Rules, 1963 which were much less than the rates discovered through auction. Thus, while Chapter III rates of royalty in above cases ranged from ₹ 65 to ₹ 160, those discovered through auction were in the range of ₹ 429 to ₹ 3,010. Based on Chapter III rates, amounts (royalty and price of mineral) ranging between ₹ 85.06 lakh to ₹ 5.96 crore only were demanded from these lessees. However, if auction rates were to be considered, these four lessees would have to pay amounts (royalty and price of mineral) ranging between ₹ 5.11 crore to ₹ 112.10 crore. Therefore, despite the occurrence of illegal mining by lessees within the lease area and/or neighbouring areas, the existing regulations allowed for the imposition of royalty and price of mineral at significantly lower rates and loss of potential revenue to the Government.

[69] Baghpat, Banda, Bulandshahr, Fatehpur, GB Nagar, Hamirpur, Kaushambi, Mahoba, Prayagraj, Shamli and Sonebhadra.

[70] Rates of royalty of minerals mentioned in schedule I of the UPMMC Rules, 1963.

The Government, in exit conference, stated that as per Section 21 (5) of the Mines and Minerals (Development and Regulation) Act, 1957, when any person raises and disposed of any mineral without any lawful authority from any land, the State Government may recover royalty, tax, price of mineral etc. from such person. The rates of royalty for minor minerals are specified in the First Schedule of the Uttar Pradesh Minor Minerals Concession Rules 2021. As per the provisions of Rule 21 of the Rules, the royalty shall not exceed 20 *per cent* of the sale price of the mineral. There are no provisions in the Act or Rules for determining the price of mineral. In the e-tender cum e-auction process, the specified royalty rate in the First Schedule of the Rules is considered as the base price. The amount obtained through the highest bid in the bidding process cannot be termed as royalty. The legal meaning of royalty is confined to the royalty specified in the Act or Rules.

The reply of the Government is not acceptable as in cases of mining areas leased through auction, Chapter III and rates of royalty provided therein are not applicable. In these cases, illegal mining was done by lease holders in lease area and/or area neighbouring the sanctioned lease area, and therefore price of mineral should have been levied five times of auction rate. Moreover, rates of royalty provided in Chapter III were not revised since 19 January 2016. Further, not applying the royalty at the auction rate and not revising rates of royalty provided in Chapter III resulted in instances (refer Sl. No. 3 and 4 of Table 4.2) where the amount of royalty and price of mineral levied for illegal mining is much lower than the royalty amount payable for legal extraction. This encourages illegal mining and considerable loss of potential revenue to Government.

Recommendations:

5. **The Government may make amendment in UPMMC Rules to clearly prescribe what is price of mineral and royalty in terms of Section 21(5) of the MMDR Act in areas leased out through auction.**
6. **The Government may review and update in a time bound manner the rates of royalty which will be applicable in cases of illegal mining in areas neighbouring mining leases settled through auction.**

4.3 Illegal mining and other irregularities seen from Google Earth

Audit examined sites of 217 leases of 16 districts from Google Earth and found instances where minerals were excavated outside lease area and without grant of mining lease. It was also found that lessees did not follow the sand mining guidelines and provisions of the UPMMC Rules, 1963 and excavated the mineral with the help of excavators. Some observations are illustrated below with images obtained from Google Earth highlighting the objected areas:

4.3.1 Mining outside the lease area

After plotting the geo-coordinates of 217 mining leases of 16 districts as shown in EC/demarcation report, Audit observed in 11 districts that minerals were excavated outside lease areas allotted to 45 lessees and total area in which illegal mining was done was approximate 268.91 hectare (26,89,100 square meter). On the conservative side, taking depth of minimum one meter,

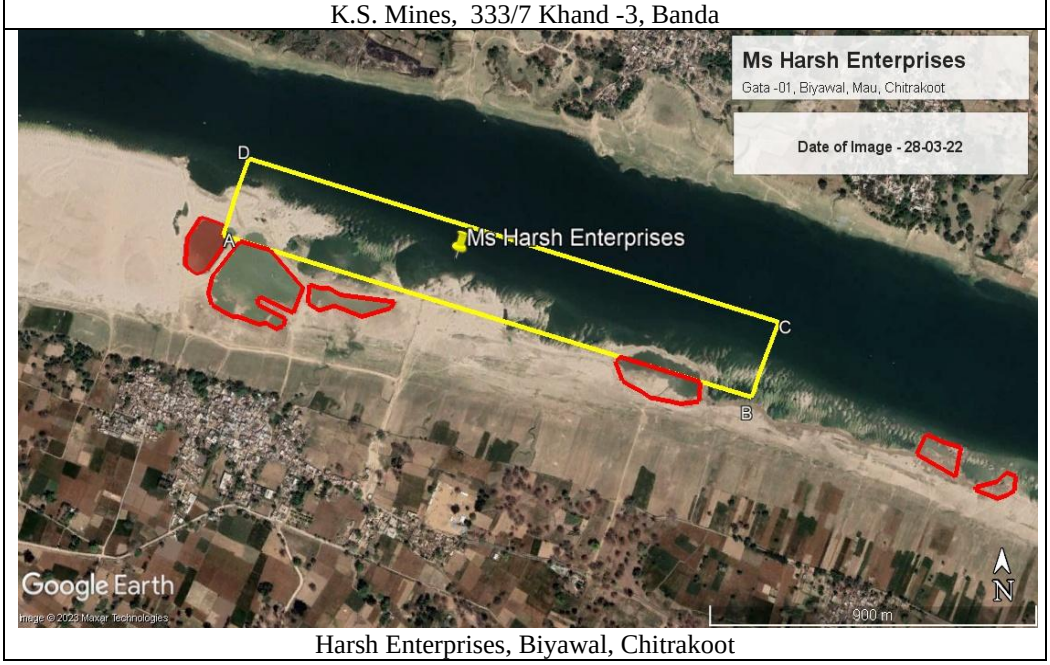
26.89 lakh cubic meter minerals were excavated illegally as detailed in **Table-4.3.**

Table 4.3
Mining outside the lease area

Name of District	Mining outside the lease area	
	No. of cases	Total area (in hectare)
Banda	6	45.48
Chitrakoot	4	34.29
Fatehpur	5	32.42
Gautambuddh Nagar	2	15.60
Hamirpur	11	62.91
Kanpur Dehat	1	1.79
Kaushambi	5	15.27
Prayagraj	5	22.09
Saharanpur	2	7.96
Siddharthnagar	1	1.00
Sonebhadra	3	30.10
TOTAL	**45**	**268.91**

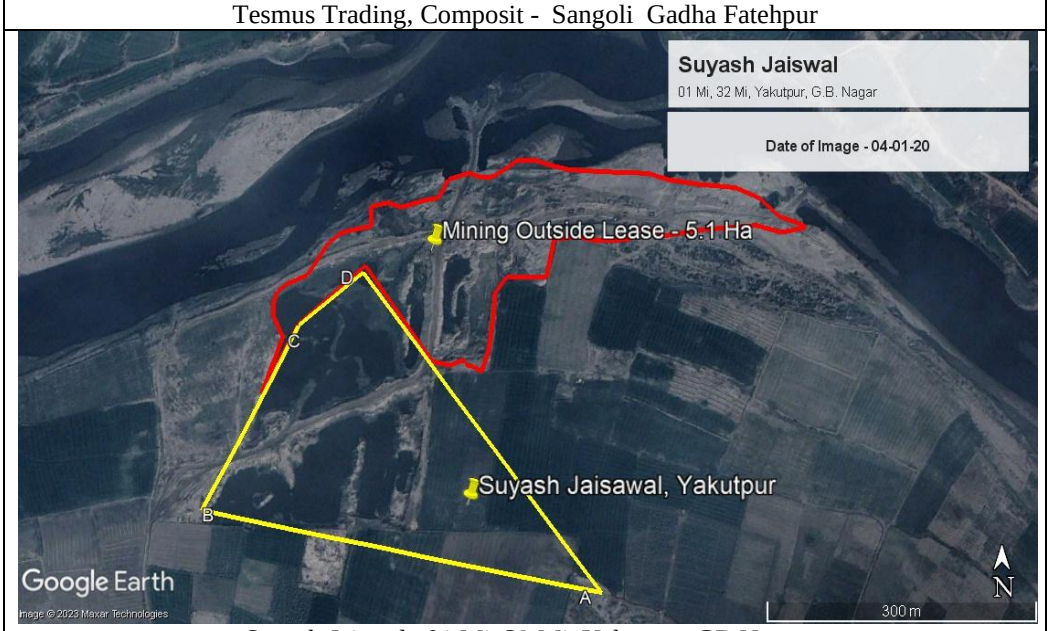
Followings are some illustration of the above leases.

K.S. Mines, 333/7 Khand -3, Banda

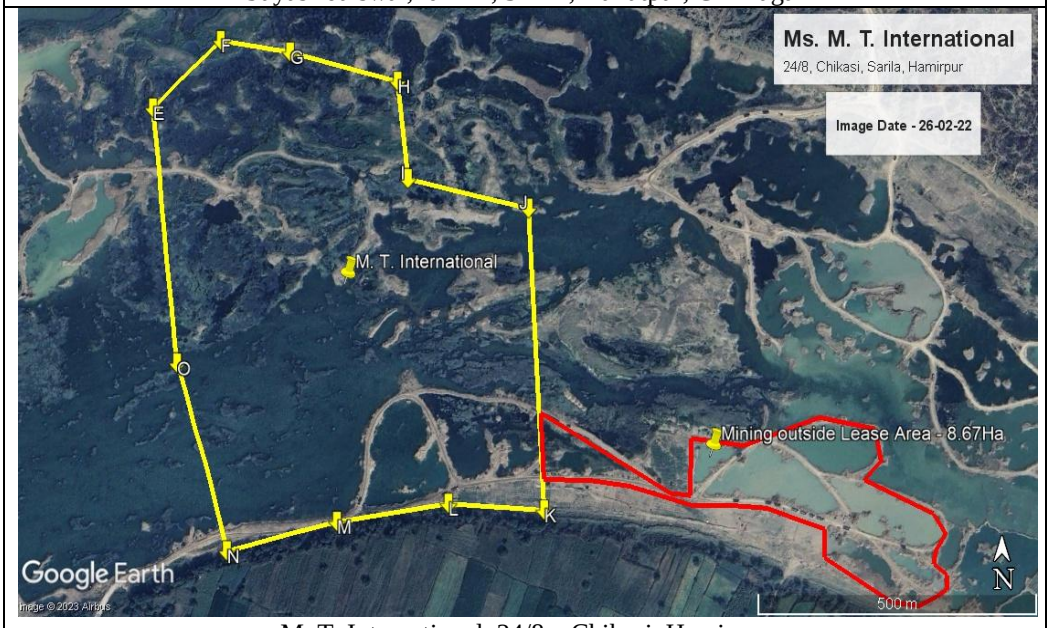


Harsh Enterprises, Biyawal, Chitrakoot

Tesmus Trading, Composit - Sangoli Gadha Fatehpur

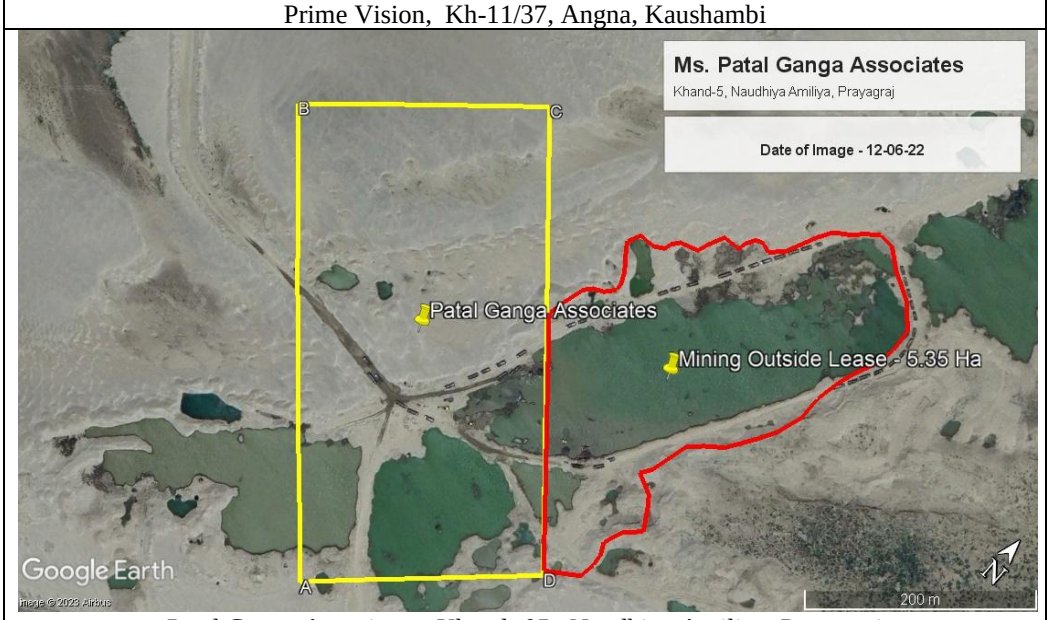


Suyash Jaiswal, 01 Mi, 32 Mi, Yakutpur, GB Nagar

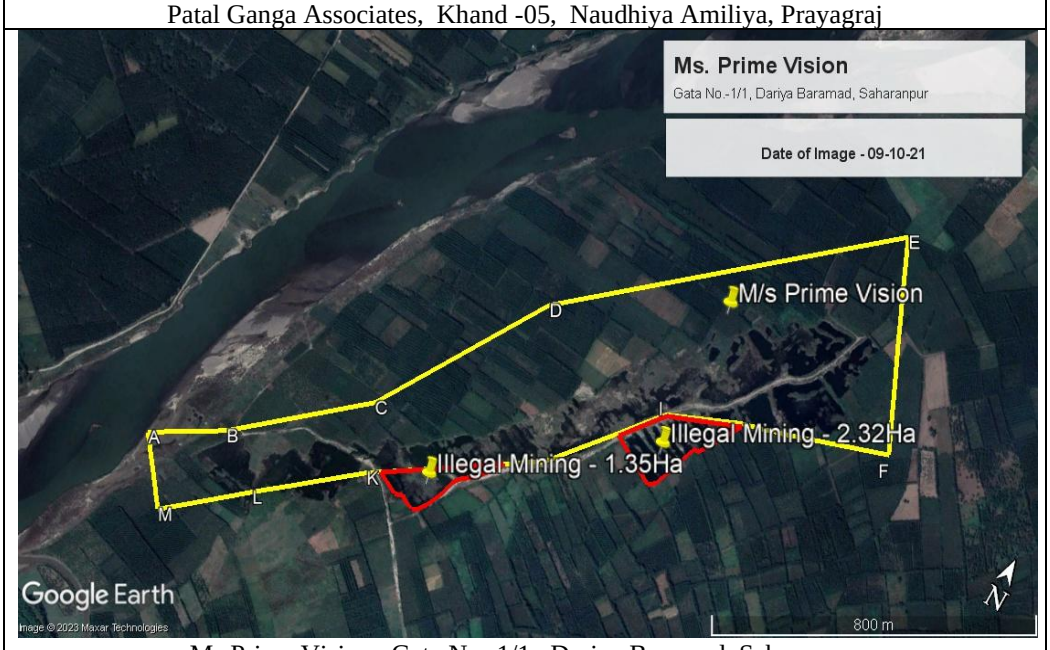


M. T. International, 24/8 – Chikasi, Hamirpur

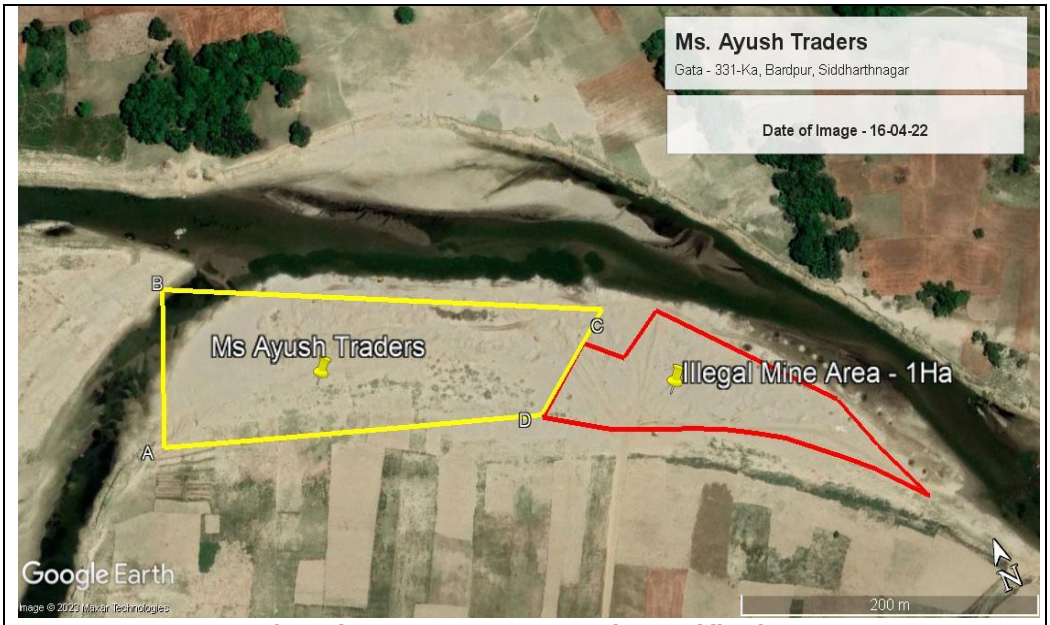
Prime Vision, Kh-11/37, Angna, Kaushambi



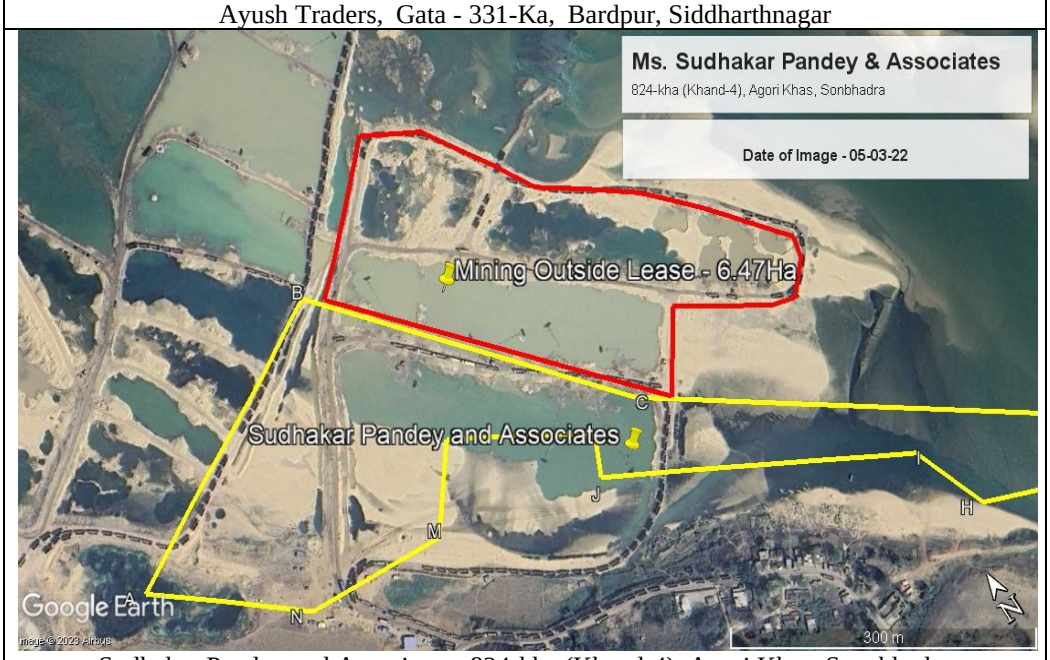
Patal Ganga Associates, Khand -05, Naudhiya Amiliya, Prayagraj



Ms Prime Vision, Gata No.-1/1, Dariya Baramad, Saharanpur



Ayush Traders, Gata - 331-Ka, Bardpur, Siddharthnagar



Sudhakar Pandey and Associates, 824-kha (Khand-4), Agori Khas, Sonebhadra

Figure 4.1- Excavation of minerals outside lease area
(Lease area – Yellow Polygon, Illegal mined Area- Red Polygon)

The Department, in its reply (July 2023), stated that the mining work being done by the lessee is periodically checked by the district level Task Force. Apart from this, through technological intervention, illegal mining is checked by conducting drone survey. Action is taken as per rules if illegal mining is found outside the sanctioned mining area during inspection. Legal action is not possible on the basis of the image obtained from Google Earth and the estimated measurement of the mining pits outside of the area.

The reply of the Department is not acceptable because concerned DMOs did not use technological intervention to detect and investigate these illegally mined areas.

4.3.2 Illegal mining without grant of mining lease

After plotting the geo-coordinates of 217 mining leases of 16 districts as shown in EC/demarcation report, Audit observed that in three districts, five cases of mining excavation occurred in an area of 30.40 hectares without the grant of mining leases. The satellite imagery clearly showed a consistent pattern of vehicular movements, presence of poclains/excavators/suction pumps and surface texture indicative of mining activities in these areas. The details of the observed cases are provided in **Table-4.4.**

Table 4.4
Illegal Mining without grant of mining lease

District	Illegal Mining other than Lease Area	
	No. of cases	Area (hectare)
Chitrakoot	1	14.90
Hamirpur	3	6.18
Sonebhadra	1	9.32
TOTAL	**5**	**30.40**

Followings are illustration of the above cases.

Chitrakoot

- 25°19'31.35"N 80°45'45.03"E

Hamirpur

- 25°54'13.26"N 79°48'51.49"E
- 25°54'06.91"N 79°48'58.39"E
- 25°54'08.52"N 79°49'04.17"E

Sonebhadra

- 24°32'06.48"N 82°59'32.17"E

Figure 4.2- Excavation without grant of mining lease (Illegal mining area – Red Polygon)

The Government, in exit conference, assured to take necessary action on matter of mining excavation without grant of mining lease.

4.4 Illegal mining and other irregularities traced out through Remote Sensing/GIS

Audit conducted a study in association with Geographic Information System (GIS) Cell, Motilal Nehru National Institute of Technology Allahabad, Prayagraj for re-assessment and substantiation of preliminary findings of audit results. The study report was issued to Department for its reply/observations. In selected Tehsil Sarila (Hamirpur) and Bara (Prayagraj) field investigations were also performed by the representatives of the GIS Cell along with the Audit and Department. The following methodology was adopted to assess the presence of illegal mining.

a. Selection of satellite imageries covering the provided sites with minimum cloud cover.
b. Co-registration of the satellite imageries.
c. Orthorectification[71] of satellite imageries.
d. Manual mapping of suspected illegally mined and accessed sites by satellite images and their temporal comparison.
e. Mapping of illegal suspected mining from satellite images is mainly focused to confident excavation regions, slopes that are not very clear are not mapped.
f. Sites mapped as illegal are mainly marked based on satellite images and a comparison of available satellite images.
g. Mostly waterlogged regions have been used for the boundary of excavation for sites that are near the bank of the river.

[71] It is the process that removes terrain distortions from raw satellite image data to facilitate reliable image data.

h. Total Station was used for data collection of topography for volume computation.

4.4.1 Area of Investigation – 1 : Bhedi Kharka, Sarila, Hamirpur

The selected Area of Investigation-1 (AOI-1) for the field visit is shown in Figure-4.3 (red polygon, 24.9 acres) which is a site of morrum. The selection of the AOI-1 was done on observation of illegal suspected mining activities, initially from Google Earth satellite imageries (also mapped by Cartosat imageries as shown in Figure 4.3) and then field survey of the sites in Bhedi Kharka village. Figure 4.3 shows Google Earth imagery and Cartosat 2E and Cartosat 3 images from 2020 to 2022 in order to highlight suspected mining activities in AOI-1.

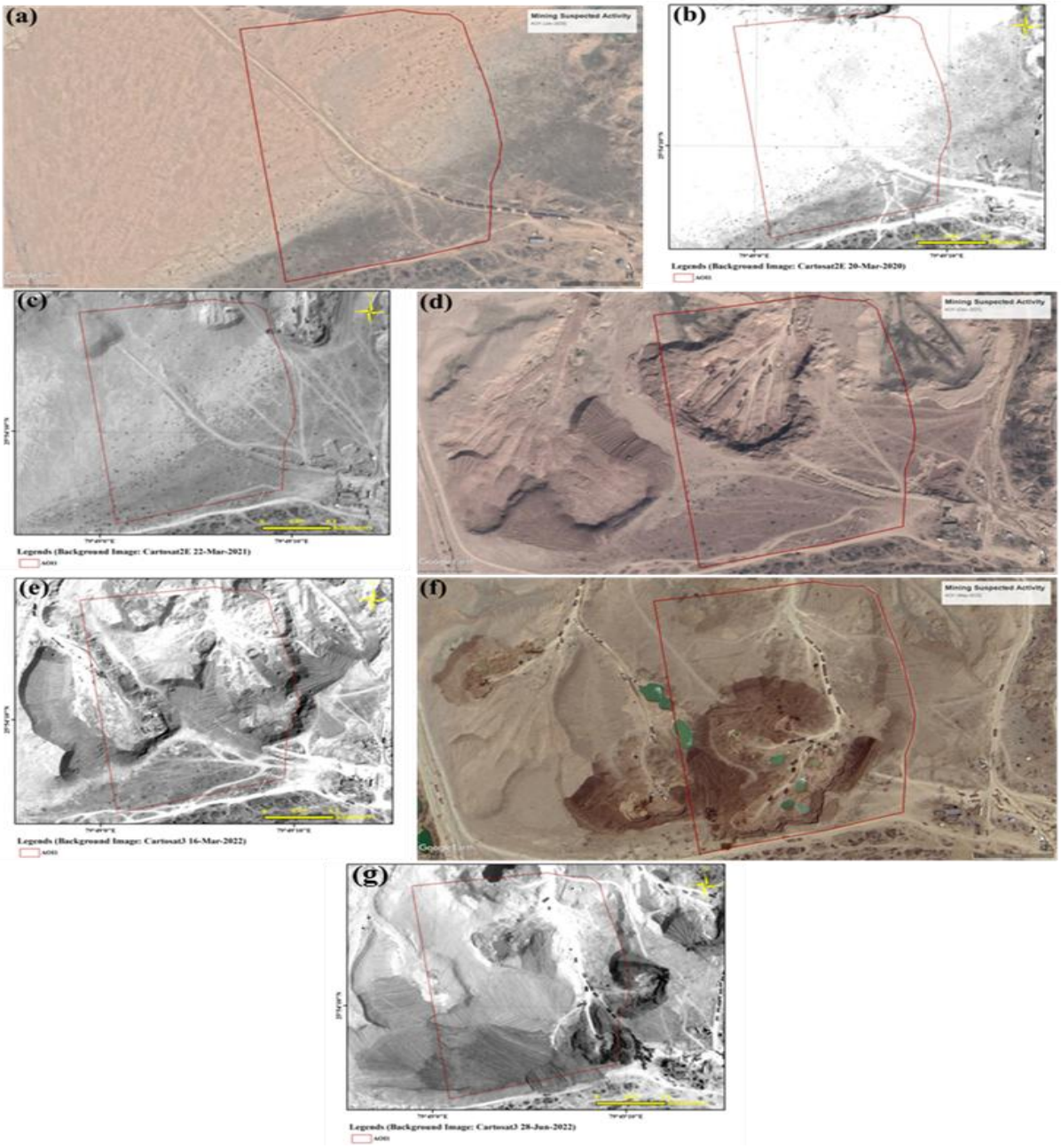


Figure 4.3: Selected AOI-1 shown in Cartosat and Google Earth images in Red Polygon: (a) Jan-2020, (b) Cartosat 2E, Mar-2020, (c) Cartosat 2E, Mar-2021, (d) Dec-2021, (e) Cartosat 3, Mar-2022, (f) May-2022, (g) Cartosat 3, Jun-2022 (Lat:25.902982^0, Lon:79.817960^0)

Figure 4.4: Photographs captured during data collection

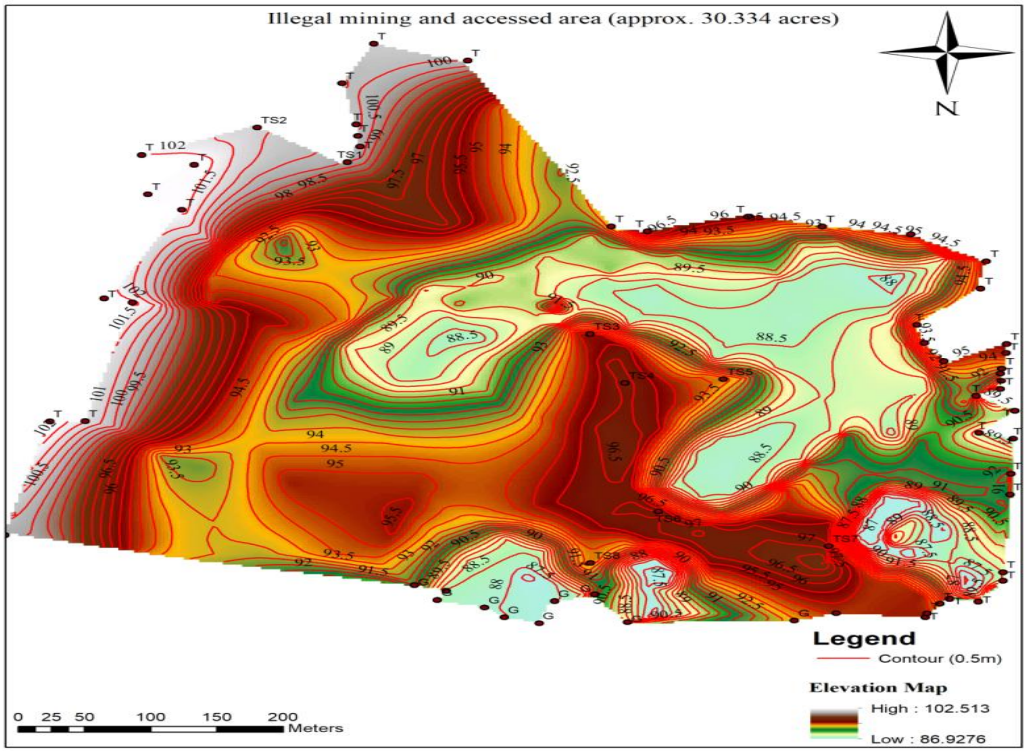


Figure 4.5: Contour map of the AOI-1

Audit noticed from Google Earth that a fleet of trucks has been observed passing through AOI-1 in January-2020 imagery, at that time no quarrying has been observed. A fleet of trucks connecting the lease (Ms. A J Constructions Gata No. 23/14) has been observed in AOI-1 in December-2021 imagery and the North-West portion of AOI is quarried (~9.29 acres). A fleet of trucks in and heading to the South-West portion of AOI-1 are observed with excavators in May-2022 imagery and the South-West portion has been extensively quarried.

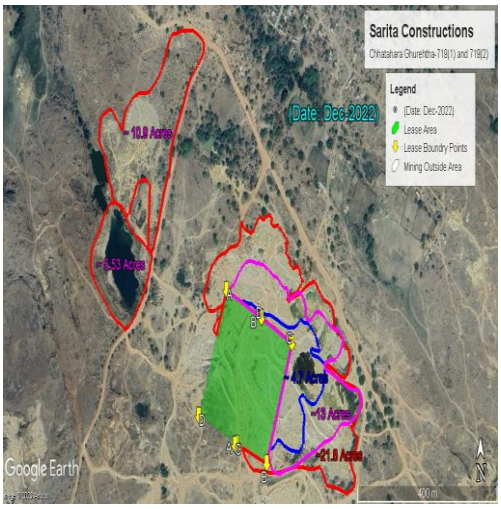
Further, on field visit total five large pits of 6-10 meter depths from reference level along with 4 small pits were found in AOI-1 which were not clearly visible from Google Earth imagery of 15 May 2022. The undisturbed lands are taken as a reference level and an elevation contour map is prepared

(Figure 4.5), which justifies the large pits' area and depth. A morrum road enters from North of the AOI-1 which comes from connecting lease (Ms. A.J. Constructions, Gata No. 23/14).

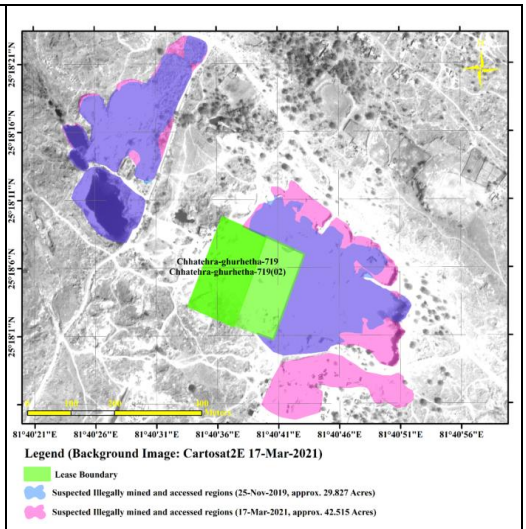
Based on the data collection, a total area of ~1,22,759 square meters (~30.334 acres) had been excavated consisting of ~3,72,963 cubic meter morrum. As a result, Government was deprived of revenue amounting to ₹ 34.21 crore (royalty ₹ 5.59 crore, price of mineral ₹ 27.97 crore and penalty approx ₹ 65 lakh). Concerned DMO failed to identify illegal mining activity in this area.

4.4.2 Area of Investigation - 2 : Chhatahara Ghurehtha, Bara, Prayagraj

The second site, AOI-2 was selected for volume computation is shown in Figure 4.6(A) (red polygons). This is a stone lease of Sarita Constructions in village Chhatahara Ghurehtha, Gata No. 719 – Khand 1 and Khand 2, Area: 5 acres each (5.99 and 4.84 acres as per GPS coordinates). In Figure 4.6(A), the red, pink, blue and green polygons show the excavation within years (2018, 2020 and 2022) and present the boundary along with the allocated site respectively. Figure 4.6(B) also shows the suspected illegal mining activities mapped by using Cartosat imagery of 2019 and 2021.



Google Earth Imagery (A)



Cartosat Imagery (B)

Feb-2018 (Blue Polygon ~4.7 acre) Jan-2020 (Pink Polygon ~13 acre) Dec-2022 (Red Polygon ~38.23 acre)	Nov-2019 (Blue Region ~ 28.827 acre) Mar-2021 (Pink Region ~ 42.515 acre)

Figure 4.6: Mining suspected activity recorded around Sarita Constructions (Chhatahara Ghurehtha-719(1) and 719(2))

The AOI-2 contains two leases but the excavation was performed constantly outside the leases (see Figure 4.6 (A) and (B)). The mining had been done outside the leased area to a greater extent to a depth of 15-20 meters, and the contour elevation map (Figure 4.7) also justifies this.

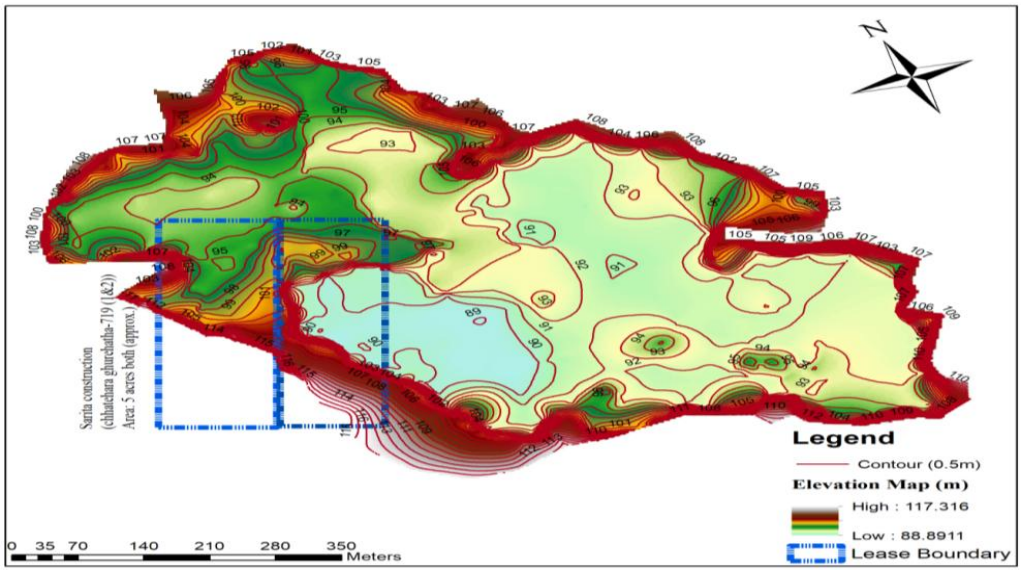
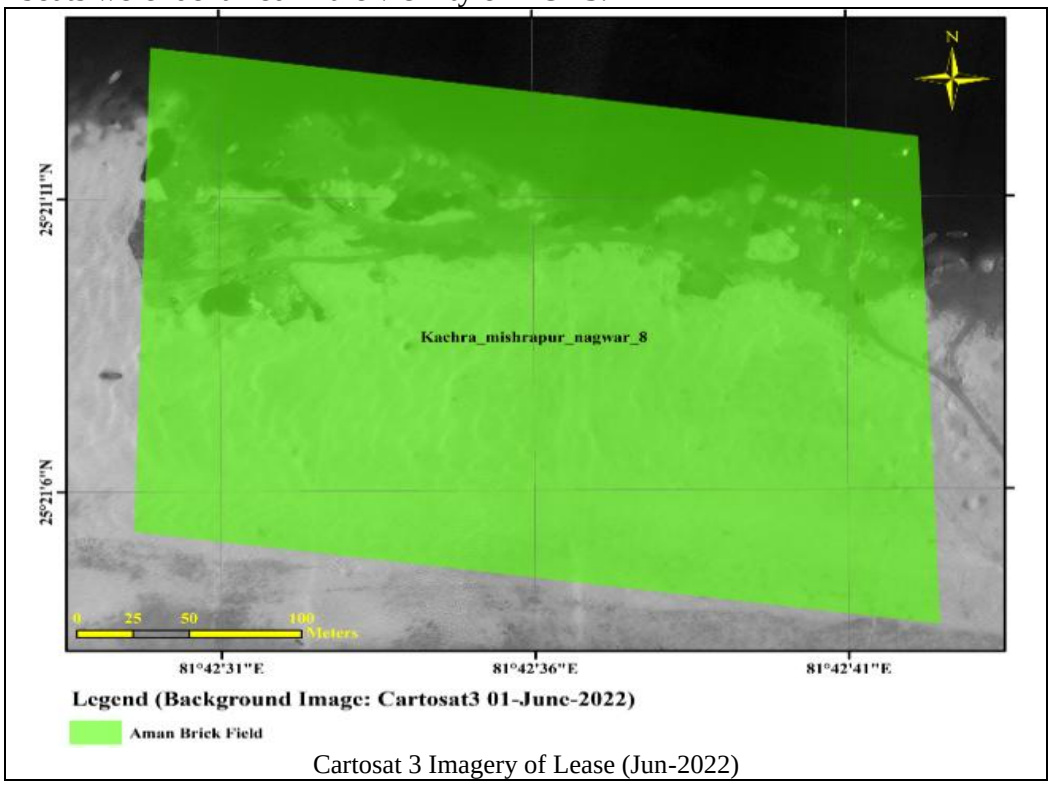


Figure 4.7: Contour map of the AOI-2

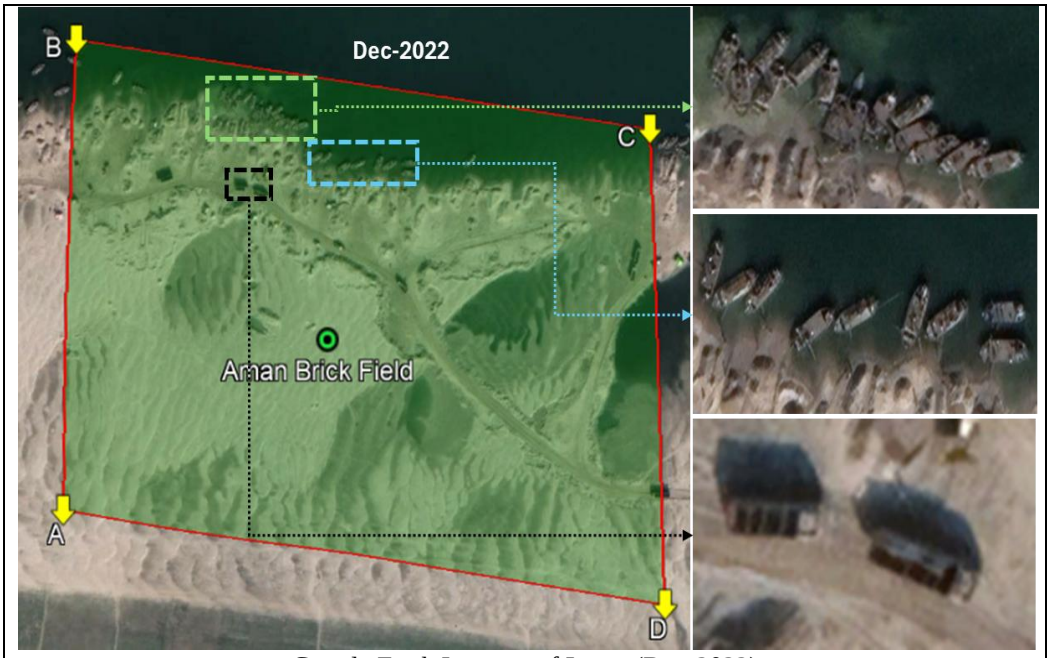
Based on the above investigation, a total area of ~1,17,545 square meters (~29.046 acres) had been excavated consisting of ~18,18,890 cubic meter volume. As a result, Government was deprived of revenue amounting to ₹ 120.66 crore (royalty ₹ 20.01 crore, price of mineral ₹ 100.05 crore and penalty ₹ 60 lakh). Concerned DMO failed to identify illegal mining activity in this area.

4.4.3 Area of Investigation -3: Kachra Mishrapur, Bara, Prayagraj

The selected AOI-3, shown in Figure 4.8 (green polygon), is a Sand lease of M/s Aman Brick Field. From the imageries it can be noticed that a number of boats were identified in the vicinity of AOI-3.



Cartosat 3 Imagery of Lease (Jun-2022)



Google Earth Imagery of Lease (Dec-2022)

Figure 4.8: Selected AOI-3 (in Green Polygon), (Lat:25.322359^0, Lon:81.709870^0) Aman Brick Field (Kachra, Mishrapur, Nagarwar Khand-08)

During field visit in February 2023, Audit noticed that lease site had not been utilised efficiently for mining purpose instead it was being utilised for dumping the sand. Sand was being brought by boats from other places and the lease site was being used for dumping purpose (Figure 4.9).

Figure 4.9: Photographs captured during field visit of Prayagraj

4.4.4 Investigations done using Satellite Imageries (Google Earth and Cartosat Images)

Audit analysed the mining activities of selected sites from satellite imageries (Google Earth and Cartosat Imageries) and compared the images obtained from both. Audit observed that illegal mining was consistently being carried out by lessees as detailed below-

a. Village Bhedi Kharka, Sarila, Hamirpur

In this village the imagery contains eight leases around which the illegally mined, accessed, and suspected regions are mapped using Cartosat imagery.

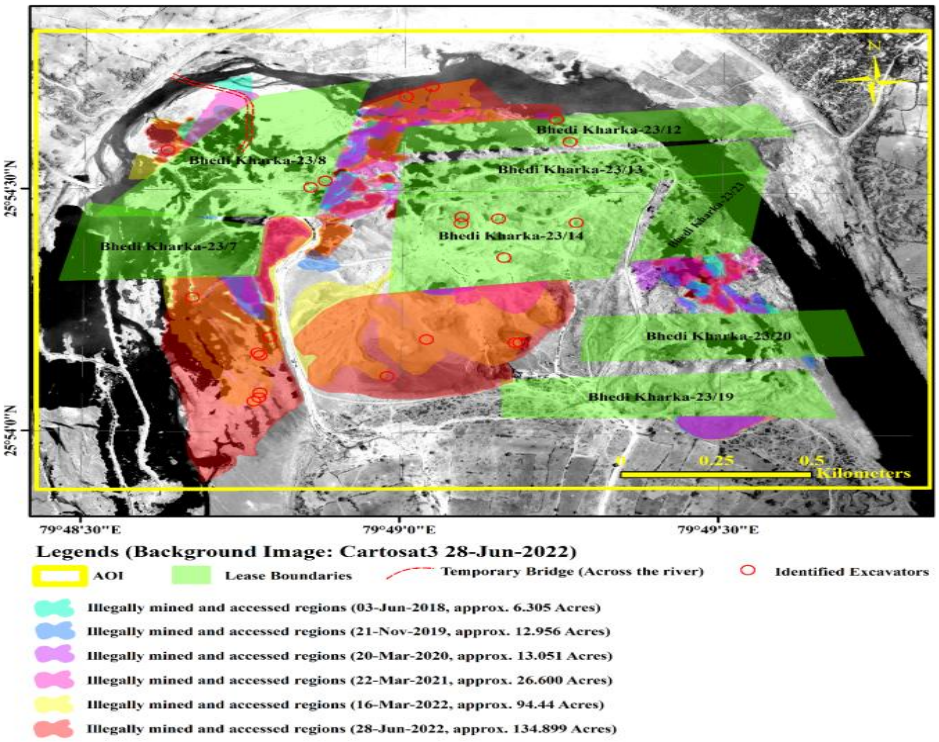
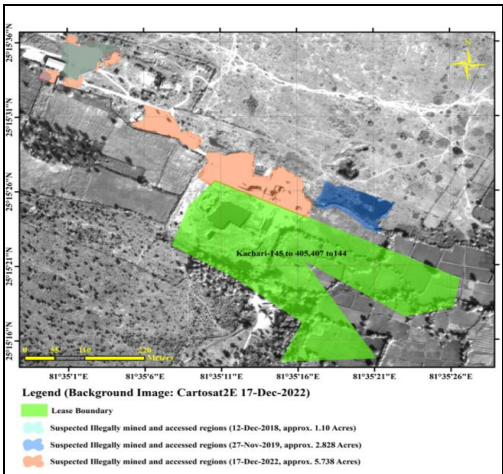


Figure 4.10: Maps of illegally mined and accessed regions from Cartosat imagery (June 2018: Green 6.305 acres, Nov 2019: Blue 12.956 acres, Mar 2020: Purple 13.051 acres, Mar 2021: Pink 26.60 acres, Mar 2022: Yellow 94.44 acres, June 2022: Red 134.899 acres)

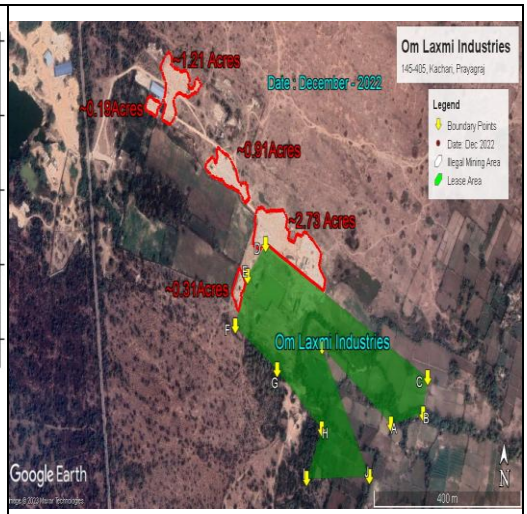
Audit noticed from Cartosat imagery in Figure 4.10 that illegally mined area was 6.305 acres in June 2018 which increased to 12.956 acres in March 2019, 13.051 acres in March 2020, 26.60 acres in March 2021, 94.44 acres in March 2022 and 134.899 acres in June 2022.

b. Om Laxmi industries (Kachari 145-405, 20.5 acres), Prayagraj



Cartosat imagery (Date -12-Dec-2018)
Cartosat imagery (Date -27-Nov-2019)
Cartosat imagery (Date -17-Dec-2022)

(Illegal mining activities ~1.10 acres, 2.828 acres and 5.738 acres)



Google Earth Imagery (Date -12-Dec-2022)

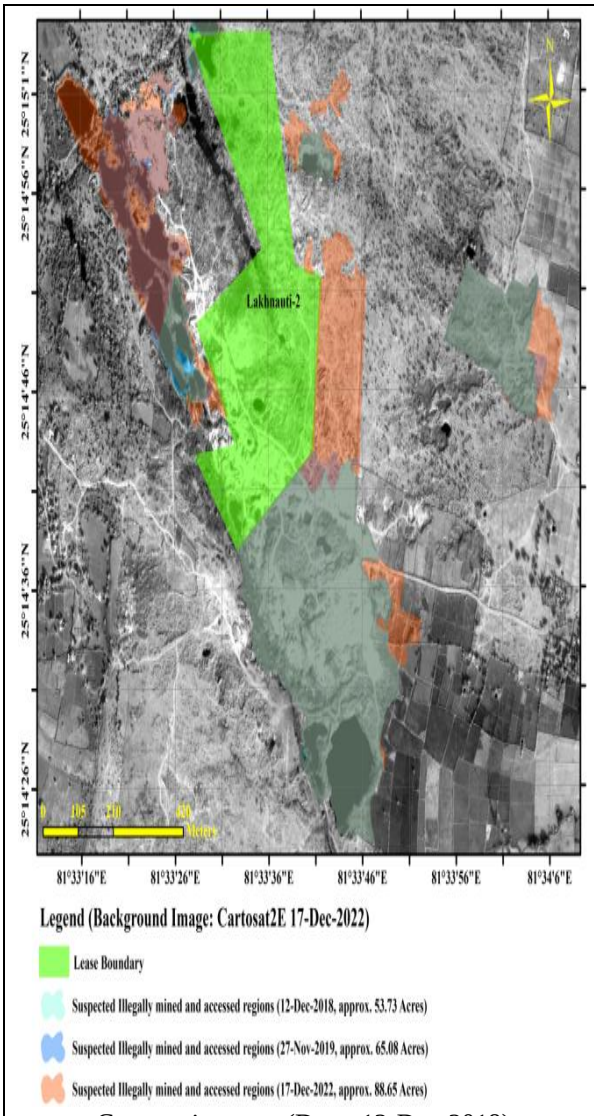
(Illegal mining activities in red polygon ~ 5.35 acres)

Figure 4.11: Illegal mining activity in Village Kachari, Prayagraj

From above pictures of Cartosat imagery and Google earth imagery this can be seen that the excavation was being done outside the allotted lease area. The suspected illegal mining has continuously increased from ~1.10 acres to ~5.738 acres from December 2018 to December 2022.

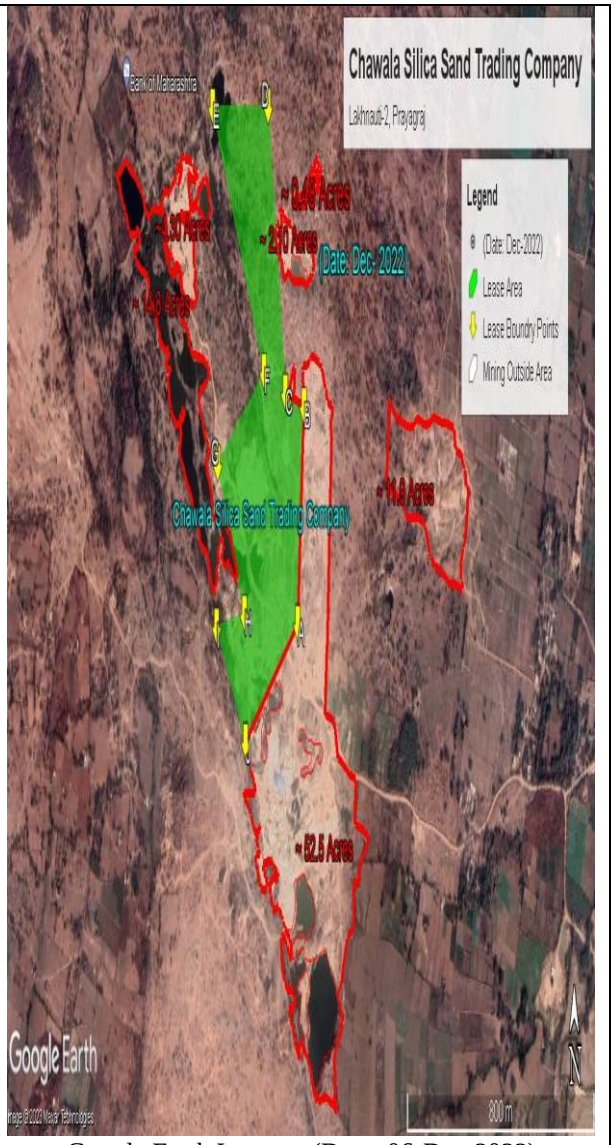
It can also be comprehended that the Google Earth imagery of 12 December 2022 and Cartosat imagery of 17 December 2022 show very similar suspected illegal mining areas, thus results can be said to be comparable.

c. Chawala Silica Sand Trading Company (Lakhnauti-2, 41.6 acres), Prayagraj



Cartosat imagery (Date -12-Dec-2018)
Cartosat imagery (Date -27-Nov-2019)
Cartosat imagery (Date -17-Dec-2022)

(Illegal mining activities ~53.73 acres, 65.08 acres and 88.65 acres)



Google Earth Imagery (Date -06-Dec-2022)

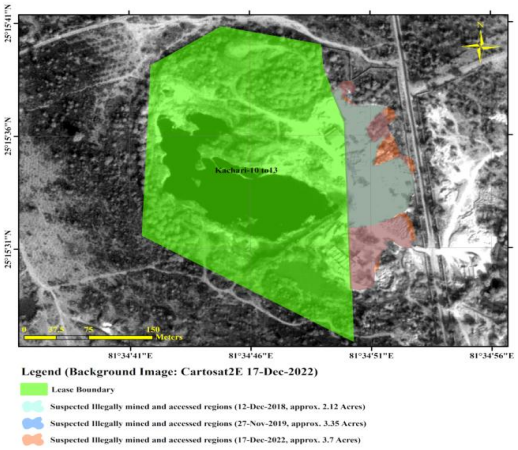
(Illegal mining activities in red polygon ~ 86.08 acres)

Figure 4.12: Illegal mining activity in Village Lakhnauti, Prayagraj.

From above pictures of Cartosat imagery and Google earth imagery this can be seen that the suspected illegal mining has continuously increased from ~53.73 acres to ~88.65 acres from December 2018 to December 2022.

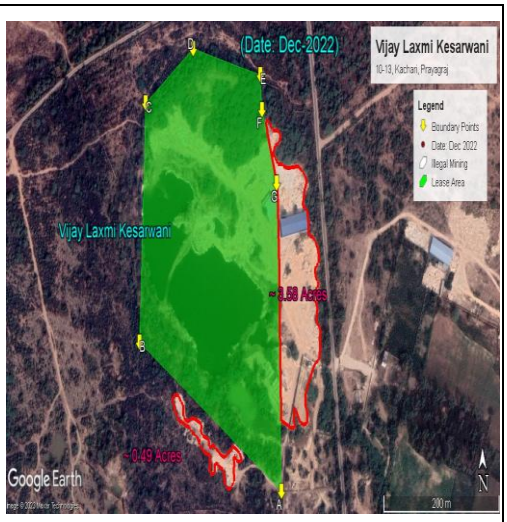
Here also it can be comprehended that the Google Earth imagery of 6 December 2022 and Cartosat imagery of 17 December 2022 show very similar suspected illegal mining areas, thus results can be said to be comparable.

d. Vijay Laxmi Kesarwani (Kachari 10-13, 18.9 acres), Prayagraj



Cartosat imagery (Date -12-Dec-2018)
Cartosat imagery (Date -27-Nov-2019)
Cartosat imagery (Date -17-Dec-2022)

(Illegal mining activities ~2.12 acres, 3.35 acres and 3.7 acres)



Google Earth Imagery (Date -06-Dec-2022)

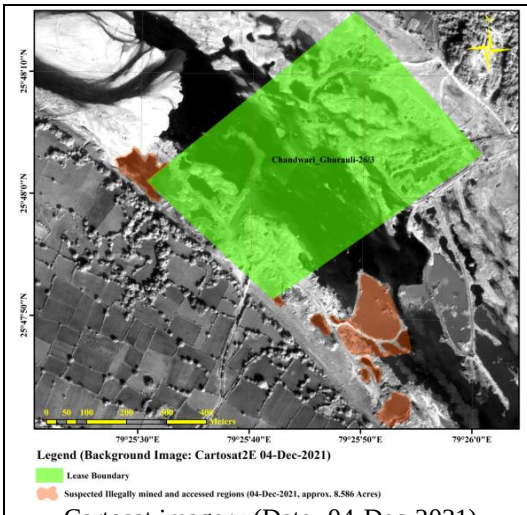
(Illegal mining activities in red polygon ~ 4.07 acres)

Figure 4.13: Illegal mining activity in Village Kachari, Prayagraj

From above pictures of Cartosat imagery and Google earth imagery it can be seen that the suspected illegal mining has continuously increased from ~2.12 acres to ~4.07 acres from December 2018 to December 2022.

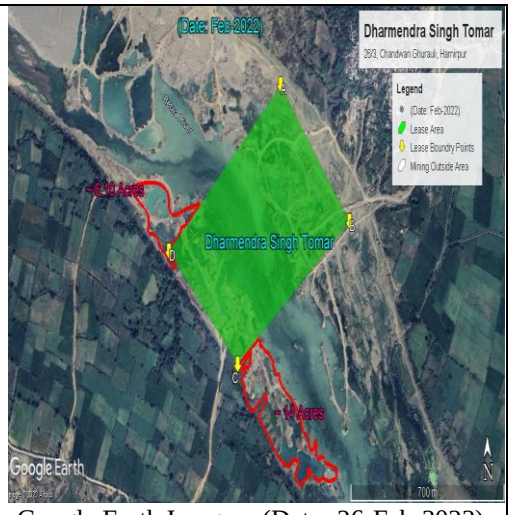
It can also be comprehended here that the Google Earth imagery of 06 December 2022 and Cartosat imagery of 17 December 2022 shows similar suspected illegal mining areas, thus results can be said comparable.

e. Dharmendra Singh Tomar (Chandwari-Ghurauli-26/3, 60.02 acres), Hamirpur



Cartosat imagery (Date -04-Dec-2021)

(Illegal mining activities ~ 8.586 acres)



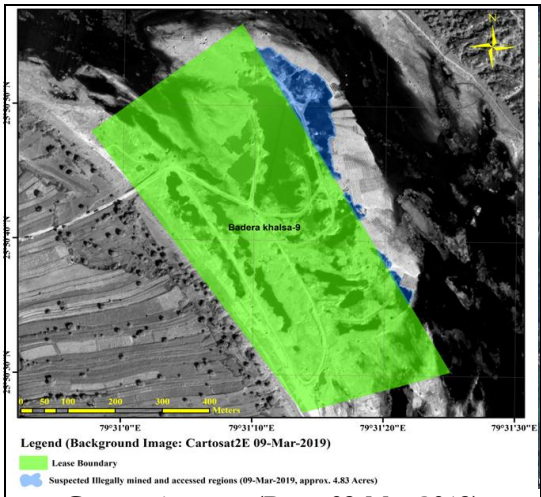
Google Earth Imagery (Date -26-Feb-2022)

(Illegal mining activities in red polygon ~20.10 acres)

Figure 4.14: Illegal mining activity in Village Chandwari Ghurauli, Hamirpur

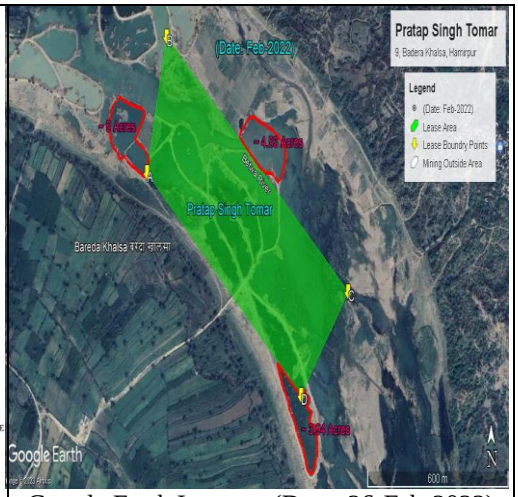
From above pictures of Cartosat imagery and Google earth imagery it can be seen that the excavation is being done outside the allotted lease area. The suspected illegal mining has increased from ~8.586 acres to ~20.10 acres from December 2020 to February 2022.

f. Pratap Singh Tomar (Badera Khalsa-9, 60.02 acres), Hamirpur



Cartosat imagery (Date -09-Mar-2019)

(Illegal mining activities ~4.83 acres)



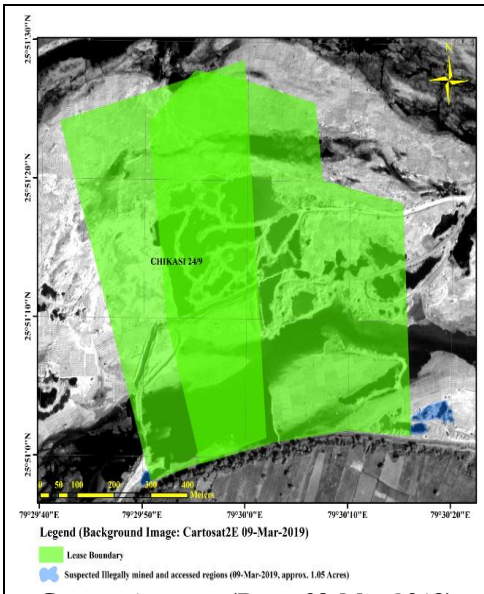
Google Earth Imagery (Date -26-Feb-2022)

(Illegal mining activities in red polygon ~ 13.47 acres)

Figure 4.15: Illegal mining activity in Village Badera Khalsa, Hamirpur

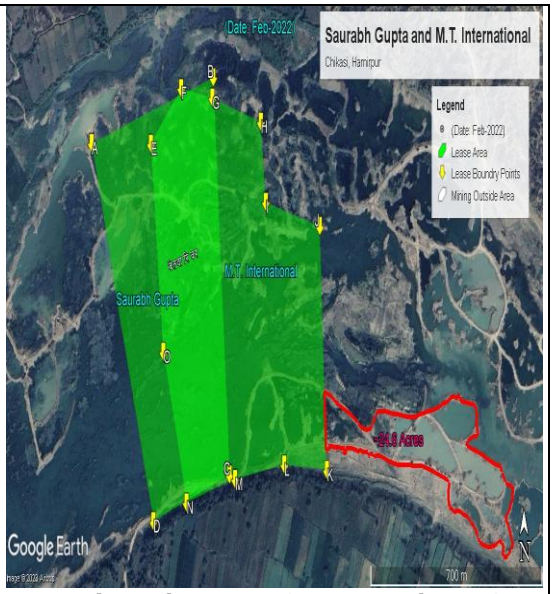
From above pictures of Cartosat imagery and Google earth imagery it can be seen that the excavation is being done outside the allotted lease area. The suspected illegal mining has increased from ~4.83 acres to ~13.47 acres from March 2019 to February 2022. Concerned DMO has failed to control this irregularity.

g. Saurabh Gupta and MT Internationals (Chikasi-24/9, 85.8 and 113 acres, Hamirpur



Cartosat imagery (Date -09-Mar-2019)

(Illegal mining activities ~1.05 acres)



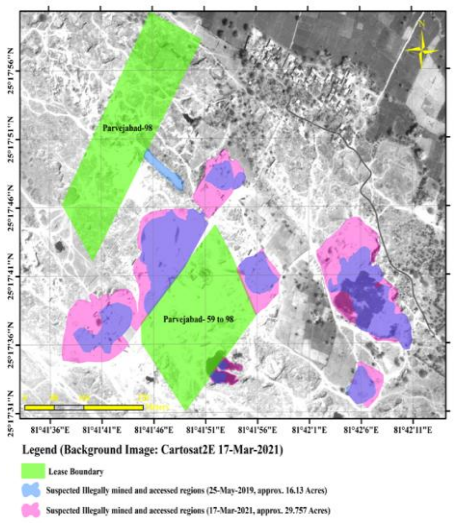
Google Earth Imagery (Date -26-Feb-2022)

(Illegal mining activities in red polygon ~ 24.6 acres)

Figure 4.16: Illegal mining activity in Village Chikasi, Hamirpur.

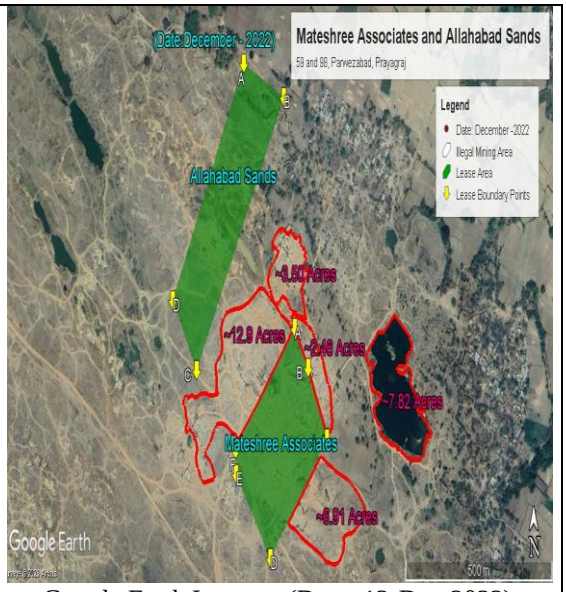
From above pictures of Cartosat imagery and Google earth imagery it can be seen that the excavation is being done outside the allotted lease area. The suspected illegal mining has increased from ~1.05 acres to ~24.6 acres from March 2019 to February 2022.

h. Mateshree Associates and Allahabad Sands (Parwezabad - 59 and 98, 16.4 and 18.5 acres), Prayagraj



Cartosat imagery (Date-25-May-2019)
Cartosat imagery (Date-17-Mar-2021)

(Illegal mining activities ~16.13 acres and 29.757 acres)



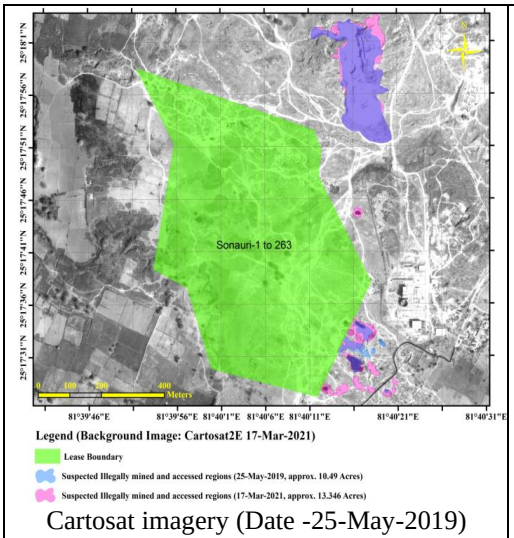
Google Earth Imagery (Date -12-Dec-2022)

(Illegal mining activities in red polygon ~ 33.59 acres)

Figure 4.17: Illegal mining activity in Village Parwezabad, Prayagraj.

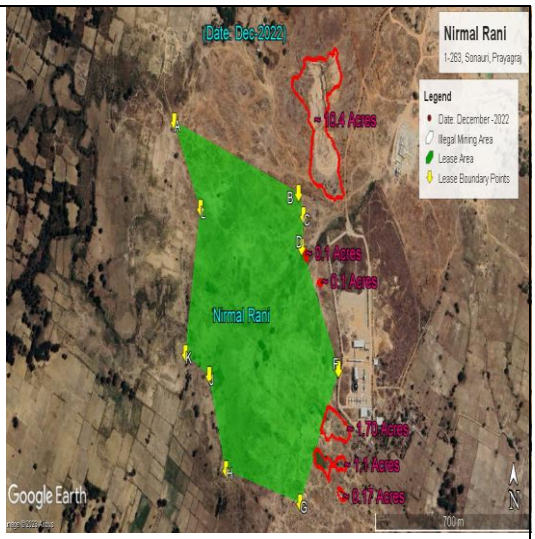
From above pictures of Cartosat imagery and Google earth imagery it can be seen that the excavation is being done outside the allotted lease area. The suspected illegal mining has continuously increased from ~16.13 acres to ~32.14 acres from March 2019 to December 2022.

i. Nirmal Rani (Sonauri - 1 to 263, 104 acres), Prayagraj



Cartosat imagery (Date -25-May-2019)
Cartosat imagery (Date -17-March-2021)

(Illegal mining activities ~10.49 acres and 13.346 acres)



Google Earth Imagery (Date -12-Dec-2022)

(Illegal mining activities in red polygon ~ 13.57 acres)

Figure 4.18: Illegal mining activity in Village Sonauri, Prayagraj.

From above pictures of Cartosat imagery and Google earth imagery it can be seen that the excavation is being done outside the allotted lease area. The suspected illegal mining has continuously increased from ~10.49 acres to ~13.62 acres from May 2019 to December 2022.

Above instances indicate that minerals are continuously being excavated illegally in this area. Concerned DMO failed to control the illegal mining.

The Government, in exit conference, assured to investigate the cases of mining without lease approval and mining near important structures, bridges etc. The Government also assured to make efforts to seek inter-departmental and inter-government (ISRO, Google and Government of India) cooperation to ensure availability of satellite imagery to investigate such type of the cases of illegal mining.

Recommendations:

7. **The Government may strengthen the mapping and monitoring process with the help of remote sensing and advance surveying instruments to identify the suspected illegal mining activities early, which can save the natural resources.**
8. **The Government may fix the responsibility of the concerned officials for loss of revenue due to illegal excavation of minerals.**

4.5 Royalty, price of mineral and penalty not recovered for minerals stored illegally

Rule 3 (1) of the Uttar Pradesh Minerals (Prevention of Illegal Mining, Transportion and Storage) Rules, 2018 stipulates that no person shall carry on the business of buying, possessing, storing, selling, supplying, transporting, distributing or delivering for sale or processing of minerals at any place for the purpose of sale or consumption or otherwise deal with any mineral except in accordance with the terms and conditions of a stock licence granted under these rules. Rule 13 (1) provides that whosoever is found to have contravened Rule 3 of this Rule then the District Officer will recover penalty up to ₹ 5,00,000 (five lakh) and the price of such mineral including royalty.

Audit noticed in three DMOs that three licensees got storage license for storage of minerals. License holders stored 2,944 cubic meter minerals illegally in contravention of above rules. Concerned DMOs imposed royalty, price of mineral and penalty of ₹ 34.80 lakh between May 2020 and October 2021. Concerned DMOs did not make any effort to recover balance amount of ₹ 34.80 lakh even after the lapse of one to three years. Details are given in **Table-4.5.**

Table 4.5
Royalty, price of mineral and penalty for minerals stored illegally

Name of unit	Name of license holder	Approved quantity for storage (in m^3)	Quantity of mineral stored illegally (in m^3)	Royalty imposed (in ₹)	Price of mineral imposed (in ₹)	Penalty imposed (in ₹)
DMO Chitrakoot	Mahavir Granite (Gitti), gata no. 757gha, 785 etc, Area-1.260 hect., Vill-Gonda, Tehsil-Karvi	20,000	2,169	3,47,040 (Not deposited)	17,35,200 (Not deposited)	5,00,000 (Not deposited)
DMO Banda	Sri Shiv Mohan Singh (Morrum), Gata no.-890, Area-0.875 hect, Vill-Chhapar, Tehsil-Banda	15,000	775	1,16,250 (Not deposited)	5,81,250 (Not deposited)	2,00,000 (Not deposited)
Total			**2,944**	**4,63,290**	**23,16,450**	**7,00,000**

Further, Audit observed that in case of Sri. Prem Chandra Kesharwani, DMO, Kaushambi did inspection on 4 July 2020 and mentioned excess storage of 1,720 cubic meter. However, Joint inspection Report by Lekhpal, Tehsildar, DMO and SDM dated 6 July 2020 mentioned excess storage of 2,060 cubic meter. Concerned DMO imposed royalty, price of minerals and penalty for 1,720 cubic meter instead of 2,060 cubic meter. The license holder deposited ₹ 20.48 lakh for royalty, price of minerals and penalty imposed. On the basis of site inspection report[72] concerned DMO did not sent any notice for recovery of royalty, price of mineral and penalty amounting to ₹ 3.06 lakh for 340 (2,060-1,720) cubic meter mineral.

Audit observed in the case of Shri Shiv Mohan Singh that recovery of ₹ 8.97 lakh has been made at the instance of audit on 31 March 2023.

Thus, against total of ₹ 37.86 lakh, only ₹ 8.97 lakh was deposited by one licensee. Due to non-recovery of royalty, price of mineral and penalty in the above cases, Government was deprived of revenue amounting to ₹ 28.89 lakh.

The Government, in exit conference, assured to recover the amount due against cases of minerals stored illegally.

4.6 Irregularities noticed from analysis of data of e-MM-11 forms

Rule 70 of UPMMC Rules, 1963 provides restrictions on the transport of the mineral. As per Rule 70(1), the holder of a mining lease or permit or a person authorized by him in this behalf may issue a pass in form e-MM-11 to every person carrying, a consignment of minor mineral by a vehicle, animal or any other mode of transport. As per Rule 70(2), no person shall carry within the State a minor mineral by a vehicle, animal or any other mode of transport except Railway without carrying a pass in form e-MM-11 issued under sub Rule 70(1).

Audit analysed the dump data of 1,21,83,652 e-MM-11 forms of 17 DMOs provided by the Department with the use of tableau software. The irregularities found from analysis are described in the succeeding paragraphs:

4.6.1 Discrepancy in issuance of e-MM-11 forms

Audit examined the e-MM-11 database and noticed in 17 DMOs[73] that lessees showed the different capacity/type of the same vehicle number for 46,409 vehicles in 40,67,762 e-MM-11 forms generated which transported 5.96 crore cubic meter of minerals. Lessees mentioned same vehicle in two to nine category while generating the e-MM-11 forms showing different quantity of minerals. Same vehicle can have only one capacity/type. No checks were available in the system also. Though such vehicular data was available in the system, this irregularity was neither noticed nor any action taken by the concerned DMOs. Details are shown in **Appendix-XXIII.**

Illustrative cases of issuance of e-MM-11 forms showing different capacity of same vehicle number is given in **Table-4.6**.

[72] Report of inspection of storage premises conducted by district authorities from time to time.

[73] Baghpat, Banda, Bulandshahr, Chitrakoot, Fatehpur, GB Nagar, Hamirpur, JP Nagar, Kanpur Dehat, Kaushambi, Mahoba, Prayagraj, Saharanpur, Sambhal, Shamli, Siddharthnagar and Sonbhadra.

Table 4.6
Illustrative cases of issuance of e-MM-11 forms

Sl. No.	Details of eMM-11 forms					Transported quantity (in cu. m.)
	Form No.	Date	Time	Vehicle No.	Type of Truck	
1	31452012039400031	17.08.2020	01:29:05	UP15DT6902	22 Tyres	30
2	31452012039400032	-Do-	01:34:05	-Do-	10 Tyres	12
3	31452012039400053	22-08-2020	12:43:20	RJ52GB2656	22 Tyres	30
4	31452012039400054	-Do-	12:47:20	-Do-	06 Tyres	10
5	31452012039400086	25-08-2020	16:04:56	UP72AT3193	18 Tyres	30
6	31452012039400087	-Do-	16:10:16	-Do-	Mini Truck	5
7	31452012039400095	26-08-2020	13:43:17	UK18CA8090	22 Tyres	30
8	31452012039400096	-Do-	13:46:56	-Do-	06 Tyres	10

The above table depicts that vehicle number UP15DT6902 is shown in 22 tyres and 10 tyres, UP72AT3193 is shown as 18 tyres and mini truck and UK18CA8090 is shown as 22 tyres and 06 Tyres in different e-MM 11 forms generated at the time interval of three to six minutes mentioning different quantity. This shows that lessees manipulated the type of vehicles for overloading of vehicles to transport the minerals illegally. Concerned DMO also did not notice this irregularity.

The Department, in its reply (July 2023), accepted the Audit observation and stated that at present, the Department is using the *VAHAN* API of the Ministry of Road Transport and Highways, GoI on portal, so that it is ensured that e-transit pass may be issued only on registered category vehicles according to standards set by the Transport Department.

4.6.2 Transportation of minerals beyond permissible time limit

As per SSMMG[74], 2016 sand mining operation would be carried out between 6:00 AM to 7:00 PM. Enforcement and Monitoring Guidelines for Sand Mining (EMGSM), 2020 also prescribes that no sand transporting vehicles will be parked inside the quarry/depot site during night time. Further, the terms and conditions of Environment Clearance Certificate (EC) also limits the loading/transportation of materials[75] to day hours' time only.

From the analysis of data of e-MM-11 forms provided by the Department, Audit noticed that 1,21,83,652 numbers of e-MM-11 forms were generated by 2,900 lessees in 17 DMOs[76] during the Audit period and out of these, 39,63,378 e-MM-11 forms were generated by 2,771 lessees in night between 08:00 PM and 05:00 AM for transportation of 5,48,15,474 cubic meter minerals. Further, Audit found that 5,99,791 transit passes were generated for transportation of 65,16,080 cubic meter of minerals at or after 8.00 PM and validity of these transit passes (which depends on distance between place of origin and place of destination of mineral) expired at or before 5.00 AM on next date. This shows that minerals were transported in night.

[74] Sustainable Sand Mining Management Guidelines 2016
[75] Bajri, Granite, Sand, Morrum, Red Morrum, Sandstone and RBM
[76] Baghpat, Banda, Bulandshahr, Chitrakoot, Fatehpur, GB Nagar, Hamirpur, JP Nagar, Kanpur Dehat, Kaushambi, Mahoba, Prayagraj, Saharanpur, Sambhal, Shamli, Siddharthnagar and Sonebhadra.

Violation of the above guidelines/terms and conditions by loading and transporting of mineral in night time may impact the lives of many nocturnal, riparian flora and fauna. Concerned DMOs and EC issuing authority neither acknowledged this irregularity nor initiated any action to stop the issuance of e-MM-11 forms and transportation of minerals in night. Details are shown in **Appendix-XXIV.**

The Department, in its reply (July 2023), stated that as per the condition of EC, mining operations remain closed at night in the mining areas located in the river bed. The mineral is collected in the mining area after mining in the day time. There is no restriction on loading and transportation after evening.

The reply of the Department is not acceptable because as per condition of the EC, transportation of minerals shall be limited to the day hours' time only and this was violation of SSMMG, 2016 also where sand mining operation is restricted between 7:00 PM and 6:00 AM.

4.6.3 Transportation of minerals beyond permissible quantity

DGM, vide its order no. 1844 dated 16 February 2004 and subsequent order no. 1225 dated 24 October 2019 fixed the quantity of minerals for loading and transportation from each type of vehicle as detailed below in **Table-4.7.**

Table 4.7
Quantity of minerals for loading and transportation

Sl. No.	Type of vehicle	Permissible quantity	
		In tonne	In cubic meter
1	6 Tyre Truck	12.5	7
2	10 Tyre Truck	18.0	11
3	12 Tyre Truck	24.0	14
4	14 Tyre Truck	30.0	18
5	16 Tyre Truck[77]	34.0	20
6	18 Tyre Truck	34.0	20
7	22 Tyre Truck	38.0	23
8	Tractor (Granite)	4.5	2.16
9	Tractor (Dolostone)	4.5	2.01
10	Tractor (Sandstone)	4.5	2.64
11	Tractor (Sand/Morrum)	4.5	2.25
12	Tractor (Silica Sand)	4.5	1.87

Audit examined the e-MM-11 database and noticed in 17 DMOs[78] that lessees transported the minerals ranging between 3 cubic meter and 410 cubic meter in comparison to the permissible quantity ranging from 1.87 cubic meter to 23 cubic meter. Minerals of 3,61,89,677 cubic meter were transported from 30,82,674 e-MM-11 forms against permissible quantity of 2,91,96,581 cubic meter. Thus, lessees transported 69,93,096 cubic meter of minerals in excess on overloaded vehicles. Details are shown in **Appendix-XXV.**

Overloading badly damages the precious road infrastructure and one of the major causes for increasing number of road accidents. The Department could

[77] This type of vehicle was available in Data Dump of e-MM-11 provided by the Department but not present in stated orders thus Audit has considered its values on higher side i.e. 18 Tyre Truck capacity.

[78] Baghpat, Banda, Bulandshahr, Chitrakoot, Fatehpur, GB Nagar, Hamirpur, JP Nagar, Kanpur Dehat, Kaushambi, Mahoba, Prayagraj, Saharanpur, Sambhal, Shamli, Siddharthnagar and Sonebhadra.

not utilise information from the system to check this irregularity consistently done by the lessees.

The Department, in its reply (July 2023), accepted the Audit observation and stated that at present, the Department is using the *VAHAN* API of the Ministry of Road Transport and Highways, GoI on departmental portal, so that it is ensured that e-transit pass may be issued only for registered category vehicles according to norms prescribed by the Transport Department.

4.6.4 Irregularities related to vehicles used for transportation of minerals

As per Section 2(14) of the Motor Vehicle Act, 1988 goods carriage means any motor vehicle constructed or adopted for use solely for the carriage of goods. Central Government vide its Notification S.O. 1248(E) dated 5 November 2004 has specified the type of motor vehicles as non-transport vehicles as mentioned below:

1. Motor cycle with or without side car for personal use
2. Mopeds and motorized cycle
3. Invalid carriage
4. Three wheeled vehicles for personal use
5. Motor car
6. Vehicles or trailers fitted with equipment like rig, generator, compressor
7. Crane mounted vehicle
8. Agriculture Tractor
9. Private service vehicle registered in the name of an individual
10. Camper van or trailer
11. Tow trucks, Breakdown van and recovery vehicles
12. Tower wagons
13. Construction Equipment Vehicles

Apart from this, three wheeler vehicles, ambulances, luxury cabs, omni buses and educational institution buses are meant for transportation of passengers and are not good carriages.

4.6.4.1 Transportation of mineral by agricultural tractors

Audit examined the e-MM-11 database of 17 DMOs[79] and noticed that minerals were transported by agricultural tractors. Cross verification from *Vahan* database of Transport Department revealed that in 17 districts 7,88,059 transit passes (e-MM-11 forms) were generated using 28,646 agricultural tractors for transportation of minerals.

Further, in the scrutiny of respective e-transit passes it was also noticed that such vehicles were used in carrying minerals one to 47 times in a day.

Agriculture tractors are to be used for agriculture purpose only. Department did not take any action to prevent transportation of minerals by agriculture

[79] Baghpat, Banda, Bulandshahr, Chitrakoot, Fatehpur, GBNagar, Hamirpur, JP Nagar, Kanpur Dehat, Kaushambi, Mahoba, Prayagraj, Saharanpur, Sambhal, Shamli, Siddharthnagar and Sonebhadra

tractors. There was no validation control present in the e-MM-11 generation to capture the type of vehicle automatically, though the Application Programming Interface (API) of *Vahan* database was available to the Department.

4.6.4.2 Use of vehicles not fit for transportation of minerals

Audit examined the e-MM-11 database of 17 DMOs[80] and noticed that minerals were transported by vehicles which were not fit for mineral transportation. Cross verification from *Vahan* database of Transport Department revealed that in 17 districts 1,81,113 transit passes (e-MM-11 forms) were generated using 83,156 vehicles such as ambulance, earth moving equipment, e-rickshaw, motor cabs, scooter/motorcycle etc. for transportation of minerals.

Minerals transported by such vehicles along with the number of trips per day was as shown in **Table-4.8.**

Table 4.8
Use of vehicles not fit for transportation of minerals

Type of vehicles	No. of vehicles	No. of MM-11 forms generated	Minerals transported (in m^3)	Range of minerals transported (in m^3)	No. of trips per day
Ambulance/ Animal Ambulance	407	767	11,809	3 to 30	1 to 12
Bulldozer/ Construction Equipment Vehicle/ Earth Moving Equipment/ Excavator/ Road Roller	1,621	3,291	47,240	3 to 30	1 to 21
Bus	3,625	7,165	1,04,784	3 to 30	1 to 32
Camper Van / Trailer / Trailer (Agricultural)/ Private Service Vehicle	213	577	5,073	3 to 30	1 to 5
Crane Mounted Vehicle/ Fork Lift	226	474	8,384	3 to 30	1 to 1
e-Rickshaw / Three Wheeler (Passenger)(3WT)	29,525	61,204	9,23,682	3 to 30	1 to 57
Fire Tenders	11	17	148	3 to 15	1 to 2
Hearses	9	56	485	6 to 16	1 to 4
M-Cycle/ Scooter(2WN)/ Scooter Side Car/ Motorized Cycle	34,742	79,420	4,44,307	3 to 30	1 to 42
Motor Car / Motor Cab / Maxi Cab	12,763	28,116	3,66,811	3 to 30	1 to 122
Vehicle Fitted With Compressor / Rig	14	26	440	5 to 26	1 to 4
Total	**83,156**	**1,81,113**	**19,13,163**	**3 to 30**	**1 to 122**

The above table shows that these vehicles not fit for transportation of minerals were used in carrying minerals multiple times per day like three wheeler upto 47 times and motor car upto 122 times.

According to the classification of vehicles, these vehicles were not meant for transportation of minerals. Therefore, it can be assumed that minerals were not carried by these vehicles. This practice might have been used to legitimise

[80] Baghpat, Banda, Bulandshahr, Chitrakoot, Fatehpur, GB Nagar, Hamirpur, JP Nagar, Kanpur Dehat, Kaushambi, Mahoba, Prayagraj, Saharanpur, Sambhal, Shamli, Siddharthnagar and Sonebhadra

overloading of minerals. There was no validation control present in the e-MM-11 form generation to capture the type of vehicle automatically, though the Application Programming Interface (API) of *Vahan* database was available to the Department.

Therefore, it is clear that the lessees were generating e-transit passes without genuine intent, leading to illegal transportation of minerals. The DGM failed to adequately monitor and prevent these activities.

The Department, in its reply (July 2023), accepted the Audit observation and stated that at present, the Department is using the *VAHAN* API of the Ministry of Road Transport and Highways, GoI on departmental portal, so that it is ensured that e-transit pass may be issued only for registered category vehicles according to norms prescribed by the Transport Department.

4.6.4.3 Transportation of minerals by vehicles having ineligible/fake registration numbers

Central Government vide its Notification S.O. 444(E) dated 12 June 1989 allotted the group of letters to the states as registration mark for each state to be followed by the code number of the registering authority to be allotted by the State Government and not exceeding four figures to be used as registration mark. Where the four figures reach 9999, the next series shall begin with alphabet 'A' followed by not more than four figures and thereafter with alphabet 'B' followed by not more than four figures and so on until all the alphabets exhausted (excluding 'I' and 'O'). Registration numbers of vehicles consist only alphanumeric i.e. alphabets and numerals.

Audit examined the e-MM-11 database and noticed in 17 DMOs[81] that lessees generated 4,48,637 e-MM-11 forms for the transportation of 24,51,021 cubic meter minerals by using 85,928 vehicles having fake registration numbers as these numbers were not available on *Vahan* database. Details are shown in **Table-4.9.**

Table 4.9
Details of vehicles having ineligible numbers

Sl. No.	Description	No. of vehicles	No. of eMM-11 forms generated	Mineral quantity (in m^3)
1	Vehicles showing less than 07-digits/ alphabets registration number	3,883	1,36,782	4,83,237
2	Vehicles showing only numerals registration number	765	1,990	10,195
3	Other invalid vehicle numbers whose information is not available on *Vahan* database	81,280	3,09,865	19,57,589
TOTAL		**85,928**	**4,48,637**	**24,51,021**

The Department, in its reply (July 2023), stated that e-transit pass for transportation of minerals is issued by the lessee/permit holder/storage license holder on the basis of vehicle number mentioned by the vehicle drivers/owners. Mechanism, to verify the correctness of vehicle number, was

[81] Baghpat, Banda, Bulandshahr, Chitrakoot, Fatehpur, GB Nagar, Hamirpur, JP Nagar, Kanpur Dehat, Kaushambi, Mahoba, Prayagraj, Saharanpur, Sambhal, Shamli, Siddharthnagar and Sonebhadra

not available in the system. At present, *VAHAN* API has been integrated with the portal.

The reply of the Department is not acceptable as the Department had not used API for verification as these discrepancies were found in the e-MM-11 issued during the period covered in audit.

4.6.5 Manipulation in distance of destination

As per information available on website of National Informatics Centre (NIC) local distance within a district is approx. 200 kilometers. However, maximum distance between one district to another district in the State is approx. 1200 kilometers. Further, Audit has estimated the distances with Google Earth Pro by taking maximum distance within district as 200 kilometers and maximum distance between two districts as 1200 kilometers.

Audit examined the e-MM-11 database and noticed in 17 DMOs[82] that distance mentioned in e-MM-11 form was much more than actual distance either transported within district or in other district within State. This ranged between 201 km to 1,02,31,208 km in 2,94,795 e-MM-11 forms generated for transportation of 39,38,683 cubic meter minerals in same districts and 1,202 Km to 1,00,00,000 km in 11,633 e-MM-11 forms generated for transportation of 1,72,806 cubic meter minerals in other districts. Due to increase in the time, by adding more distance, risk of reusing the same e-MM-11 forms multiple times in a single payment cannot be ruled out. Concerned DMOs did not notice these irregularities. Details are shown in **Appendix-XXVI.**

The Department replied (July 2023) that from 30 September 2022, distance matrix has been implemented on the departmental portal in which the distance from one district to another destination district is automatically calculated by the portal.

The fact remains that while generating e-MM-11 forms, lessees had entered unrealistic distances between two places for transportation of minerals continuously during the period covered in audit.

4.6.6 Excavation/transportation of minerals in prohibited months

As per SSMMG, 2016, no river sand mining be allowed in rainy season. Further, Government vide its order No. 1955 dated 20 August 2019 directed that sand/morrum would not be excavated/transported in prohibited months i.e. July, August and September.

Audit examined the database of e-MM-11 forms of 17 test-checked DMOs[83] and noticed[84] that in 11 DMOs[85], 144 lessees issued 32,170 e-MM-11 forms for quantity of 3,39,957 cubic meter in the month of July, August and

[82] Baghpat, Banda, Bulandshahr, Chitrakoot, Fatehpur, GB Nagar, Hamirpur, JP Nagar, Kanpur Dehat, Kaushambi, Mahoba, Prayagraj, Saharanpur, Sambhal, Shamli, Siddharthnagar and Sonebhadra

[83] Baghpat, Banda, Bulandshahr, Chitrakoot, Fatehpur, GB Nagar, Hamirpur, JP Nagar, Kanpur Dehat, Kaushambi, Mahoba, Prayagraj, Saharanpur, Sambhal, Shamli, Siddharthnagar and Sonebhadra

[84] For the period from 21 August 2019 to 31 March 2022.

[85] Banda, Chitrakoot, Fatehpur, GB Nagar, Hamirpur, Kanpur Dehat, Mahoba, Prayagraj, Saharanpur, Shamli, and Sonebhadra

September for transportation of sand/morrum. Concerned DMOs did not initiate action to prevent the generation of e-MM-11 forms in prohibited months.

Sand is precious natural resource and if the excavation of sand is done, the same causes irreparable loss to the nature. It was specifically spelt out in the environment clearance as well as in the SSMM Guidelines, 2016 that no mining activity will be done in the monsoon season. Due to illegal mining in prohibited months, there is a risk of environment and ecology being adversely affected.

Details are shown in **Appendix-XXVII.** Department failed to comply with above Government order.

The Department replied (July 2023) that the operation of agricultural permits is not interrupted during the prohibited months.

The reply of the Department is not acceptable because the Audit observation is not on the agricultural permit but it is for the minerals like sand and morrum which were excavated in monsoon season by approved mining lease/permit holders.

Recommendations:

9. **The Government may enable proper controls in the departmental portal and link it with *Vahan* database to minimise manual intervention in generation of e-MM-11 forms and to prevent generation of e-MM-11 forms for vehicles not fit for transportation of mineral, for transportation of mineral in excess of permitted quantity, for unrealistic distances & in prohibited months.**
10. **The Government may establish coordination between Geology and Mining Department and Transport Department to prevent the overloading of minerals and use of vehicles not fit for transportation of minerals.**

4.7 Royalty and price of mineral not recovered for excavation of mineral without obtaining lease/permit

Rule 3 of the UPMMC Rules, 1963 provides that no person shall undertake mining operations in any area within the State of any minor mineral to which these rules are applicable except under and in accordance with the terms and conditions of mining lease or mining permit granted under these Rules.

Audit examined the records of Office of the District Mines Officer, Prayagraj, and noticed that an inspection was conducted by DMO Prayagraj and reported that Meja Thermal Power Project (National Thermal Power Corporation), Kohdar Tehsil Meja mined a total quantity of 53,88,930 cubic meters of ballast and boulders (3,80,770 cubic meter ballast and 50,08,160 cubic meter boulder) and used in construction work. Further, Audit noticed that District Magistrate Prayagraj sent a letter to General Manager, Meja Thermal Power Project for depositing the total amount of ₹ 3,22,62,49,100 (the balance amount of royalty ₹ 51,27,45,600 and price of mineral ₹ 2,71,35,03,500) on 22 September 2018 as minerals were used in construction work without obtaining mining lease/mining permit. It was found that ₹ 52,14,533 was deposited by the project on 8 July 2019, ₹ 35,880 on 23 October 2020 and ₹ 29,27,526 on 31 March 2021 as royalty. Till the date of Audit, the

Department could not recover the balance amount of royalty and price of minerals amounting to ₹ 321.81 crore. Concerned DMO neither initiated any action nor issued any notice or recovery certificate for recovery of these dues even after lapse of more than five years. Due to negligence of the Department, Government was deprived of revenue.

The Government, in exit conference stated that the reports have been sought by DGM from concerned district.

The fact remains that minerals were excavated and transported without obtaining lease/permit and the Department did not recover the balance amount of royalty and price of mineral.

4.8 Mining Surveillance System not implemented effectively

The Ministry of Mines, through Indian Bureau of Mines (IBM), has launched the Mining Surveillance System (MSS) on 15 October 2016, to use space technology for curbing illegal mining activity in the country. MSS is a satellite-based monitoring system which checks a region of 500 meters around the existing mining lease boundary to search for any unusual activity which is likely to be illegal mining. Any discrepancy, if found is flagged-off as a trigger. The Ministry of Mines advised State Governments to implement the MSS for Minor Minerals within their States. Further, Ministry of Mines arranged training for the officials of State Governments and the triggers generated from the MSS are also sent to respective State Governments.

Audit examined the records of DGM and noticed that MSS cell was established in August 2017 in the DGM for implementation of MSS in 11 districts[86]. The MSS cell had to obtain khasara map, digitise geo-referencing of the map and upload the same on MSS portal. Suspected illegal mining areas were to be identified through image reading of Cartosat map and triggers were to be sent to concerned district for field verification. The concerned district officer had to upload its report on MSS portal after field verification and take action as per rules. DGM instructed the DMOs of these districts on 4 September 2017 to make available joint maps of mining leases for implementation of MSS.

Further, on 18 October 2017 and 29 January 2018 DGM instructed to DMO Sonebhadra and DMO Jhansi respectively to provide a report on suspected illegal mining from outside of lease areas of village-Habupura and Karanpura of Jhansi District and village-Billi markundi of district Sonebhadra on the basis of satellite image reading. In response District Magistrate, Sonebhadra demanded a separate surveyor for inspection of suspected areas and District Magistrate, Jhansi intimated that there were old mining pits in these areas where no mining activity is being done at present. However, no records were found in DGM that such reports of illegal mining were sent by other 10 districts including Sonebhadra.

Audit observed that the State Government implemented the MSS but did not utilise this system effectively to prevent the illegal mining in the State. Total 76 triggers have been obtained from MSS and sent to concerned districts for further action. Action taken by the Department was not furnished to Audit. According to the information provided by DGM, MSS is currently

[86] Agra, Banda, Chitrakoot, Hamirpur, Jalaun, Jhansi, Lalitpur, Mahoba, Mirzapur, Prayagraj and Sonebhadra

non-functional and there were no documented reasons explaining this. DGM failed to utilise MSS effectively, despite the directions and advice of the GoI. Due to non-operational status of the MSS, DGM was unable to leverage the benefits of the system in combating illegal mining.

The Department replied (July 2023) that the MSS provided by the Government of India was applicable for major minerals only. To deal with minor minerals, a parallel system iMSS[87] was made in the year 2020, which is applicable and updated in the entire State.

The reply of the Department is not acceptable because the cases of illegal mining noticed by Audit, pertain to periods after 2020 as well. The Department failed to use iMSS in case of curbing illegal mining by replacing MSS as the Department did not use drone surveillance to curb the onsite illegal mining. Thus, iMSS could only be utilised for checking of illegal transportation.

4.9 Cess not imposed for technological intervention

According to the Uttar Pradesh Mining Policy 2017 (effected from 2017), an amount equal to one *per cent* of the royalty payable on the extraction of minerals from the mining lease holders as cess will be recovered to meet the expenditure incurred in the use of technological intervention to prevent illegal mining/transportation of minerals.

Audit examined the records of DGM and noticed that DGM implemented MSS/iMSS as technological intervention with the aim to prevent illegal mining/transportation of minerals. However, the Department did not impose any cess on mining lease holders to meet the expenditure incurred on it.

The Government, in exit conference, accepted that cess has not been imposed and stated that expenditure is being incurred from DMF in place of cess amount. However, Audit observed that there is no provision in DMFT Rules to make expenditure for technological intervention to prevent illegal mining/transportation of minerals.

4.10 Irregularities in establishment of Brick kilns seen from Google Earth

As per Rule 2 of the Uttar Pradesh Brick Kilns (Siting Criteria for Establishment) Rules, 2012, subject to provisions of the Uttar Pradesh Promotion and Protection of Fruit Trees, Regulation of Harmful Establishment and Housing Scheme Act, 1985, a brick kiln shall not be established which does not fulfil the following conditions:

1. Brick kiln shall be established at least 500 m away from residential area having a minimum population of 100 to 150 people or 20 houses including both kachcha and pucca houses, 1.0 km from a residential area having a population more than 150 or more than 20 houses including both kachcha and pucca houses. However, the distance from notified municipal area will be 5.0 km.

[87] Integrated Mining Surveillance System (iMSS) has been implemented with facilities of drone surveillance of areas of complaints of illegal mining, registration of mineral transporting vehicles, Radio Frequency Identification (RFID) tags and weigh bridges along with Pan Tilt Zoom (PTZ) Camera at the exit of mines and their integration with State Command Centre.

2. The distance of brick kilns shall be at least 1.0 km from the areas like registered hospital, school, public building, religious place or a place where flammable substances are stored. Brick kilns shall not be allowed within a radius of 5.0 km in notified sensitive areas like Zoo, wild life sanctuary, historic monuments, museum etc.
3. Brick kilns shall not be constructed within 800 m from the orchard.
4. The brick kilns shall be constructed at least 300 m away from National and State highway from the both sides of the road.
5. Brick kiln shall be constructed at least 100 m away from the both sides of the main district road/ PWD roads.
6. The distance between two brick kilns shall not be less than 800 m to avoid clustering of brick kilns in an area if a new brick kiln is being installed.

Audit examined the 1,452 selected sites of brick kilns from Google earth and found that norms regarding establishment of brick kilns given in the above rules were not followed by the brick kiln owners. Violation of norms regarding establishment of brick kilns are discussed in subsequent paragraphs with illustrative images obtained from Google Earth.

4.10.1 Violations of norm regarding distance from other Brick Kilns

Audit noticed that 128 brick kilns were established in nine districts violating the norm of 800 m distance from other kiln as detailed in **Table-4.10.**

Table 4.10
Distance from other Brick Kilns

Name of District	Number of brick kilns
Fatehpur	29
Gautambuddh Nagar	2
JP Nagar	35
Kanpur Dehat	1
Kaushambi	10
Prayagraj	15
Saharanpur	15
Sambhal	17
Siddharthnagar	4
TOTAL	**128**

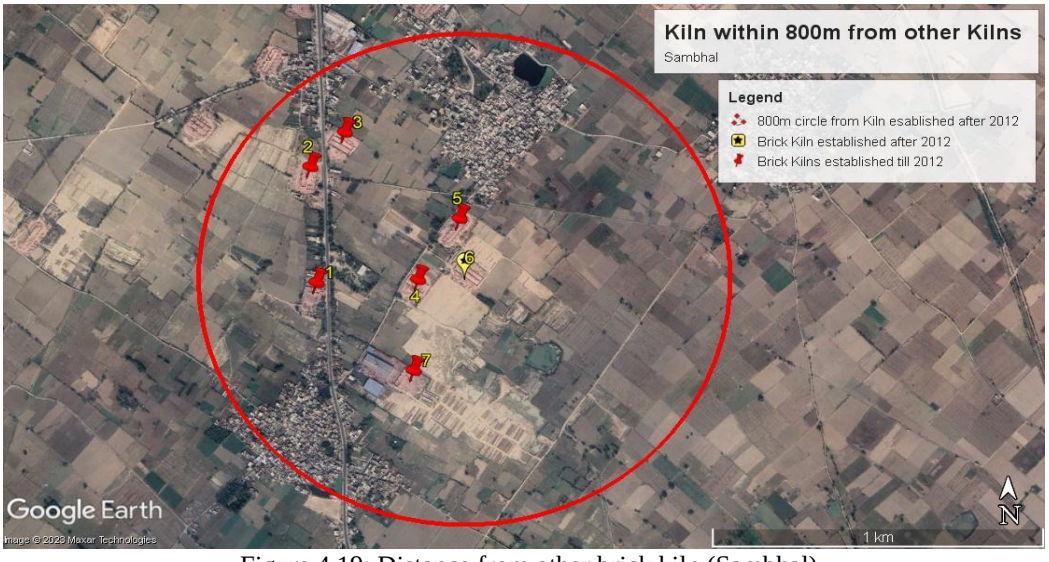


Figure 4.19: Distance from other brick kiln (Sambhal)

4.10.2 Violations of norm regarding distance from Residential Area

Audit noticed that 256 brick kilns were established in nine districts violating the norm of 1 km distance from residential area as detailed in **Table-4.11.**

Table 4.11
Distance from Residential Area

Name of District	Number of brick kilns
Fatehpur	65
Gautambuddh Nagar	4
JP Nagar	47
Kanpur Dehat	3
Kaushambi	53
Prayagraj	16
Saharanpur	30
Sambhal	18
Siddharthnagar	20
TOTAL	**256**

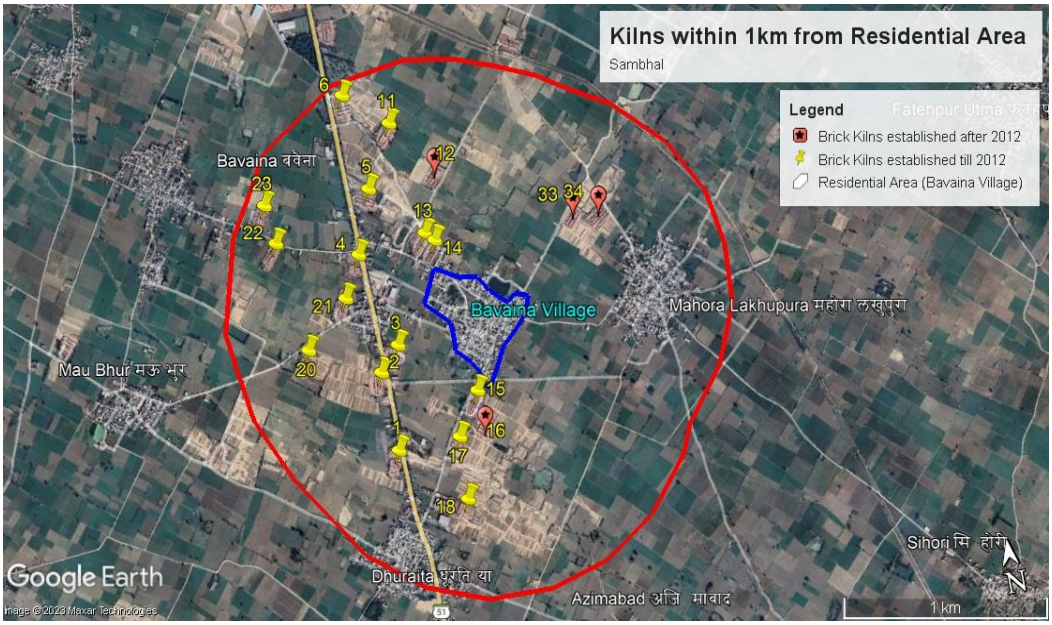


Figure 4.20: Distance from residential area (Sambhal)

4.10.3 Violations of norm regarding distance from National/State Highways

Audit noticed that 35 brick kilns in seven districts were established violating 300 m criteria from National/State Highway as detailed in **Table-4.12.**

Table 4.12
Distance from National/State Highways

Name of District	Number of brick kilns
Fatehpur	11
Gautambuddh Nagar	1
JP Nagar	8
Kaushambi	7
Saharanpur	2
Sambhal	2
Siddharthnagar	4
TOTAL	**35**

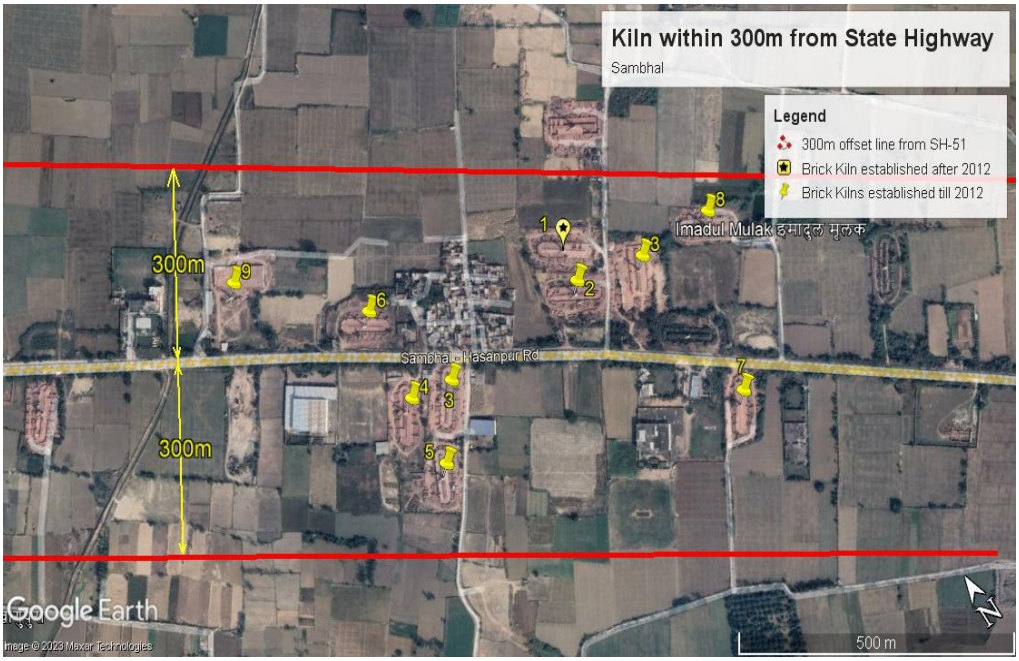


Figure 4.21: Distance from State highway (Sambhal)

4.10.4 Violation of norm regarding distance from School/College

Audit noticed that 162 brick kilns in seven districts were established violating 1km distance criteria from Schools/Colleges as detailed in **Table-4.13.**

Table 4.13
Distance from School/College

Name of District	Number of brick kilns
Fatehpur	52
JP Nagar	17
Kaushambi	40
Prayagraj	16
Saharanpur	21
Sambhal	1
Siddharthnagar	15
TOTAL	**162**

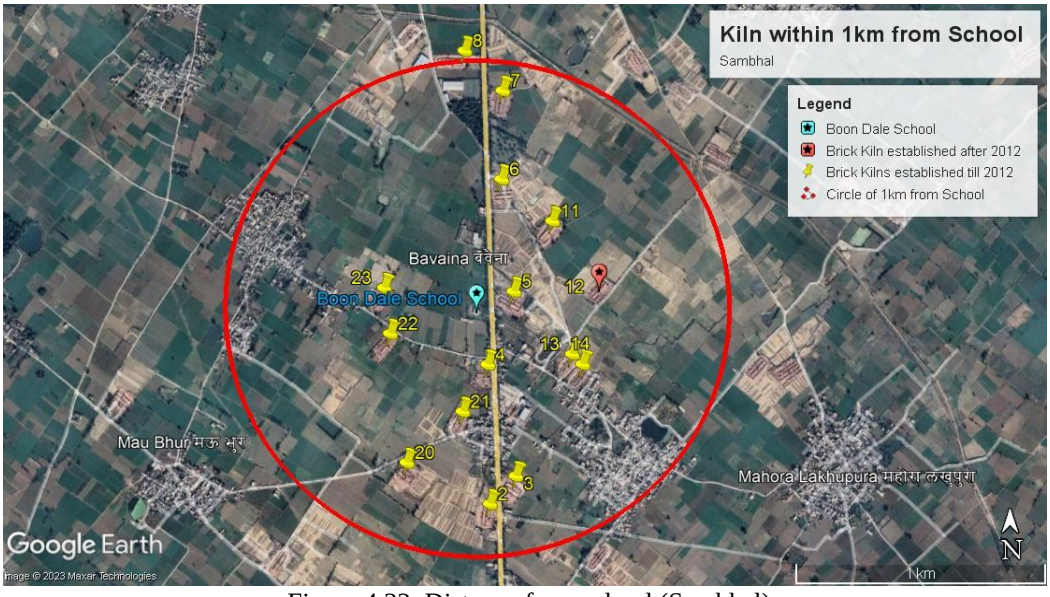


Figure 4.22: Distance from school (Sambhal)

4.10.5 Violation of norm regarding distance from Hospital

Audit noticed that nine kilns in five districts were established near (within 1 km) Hospitals as detailed in **Table-4.14.**

Table 4.14
Distance from hospital

Name of District	Number of brick kilns
Fatehpur	1
Kaushambi	3
Prayagraj	2
Saharanpur	2
Siddharthnagar	1
TOTAL	**9**

Figure 4.23: Distance from PHC (Fatehpur)

4.10.6 Violation of norm regarding distance from Orchard

Audit noticed that one brick kiln in district Kaushambi was established violating 800m distance norm from Orchard.

Figure 4.24: Distance from orchard (Kaushambi)

4.10.7 Violation of norm regarding distance from Eco Sensitive Zone (ESZ)

Audit noticed that one brick kiln in district JP Nagar was established within ESZ of Hastinapur Wild Life Sanctuary violating 5 km distance criteria.

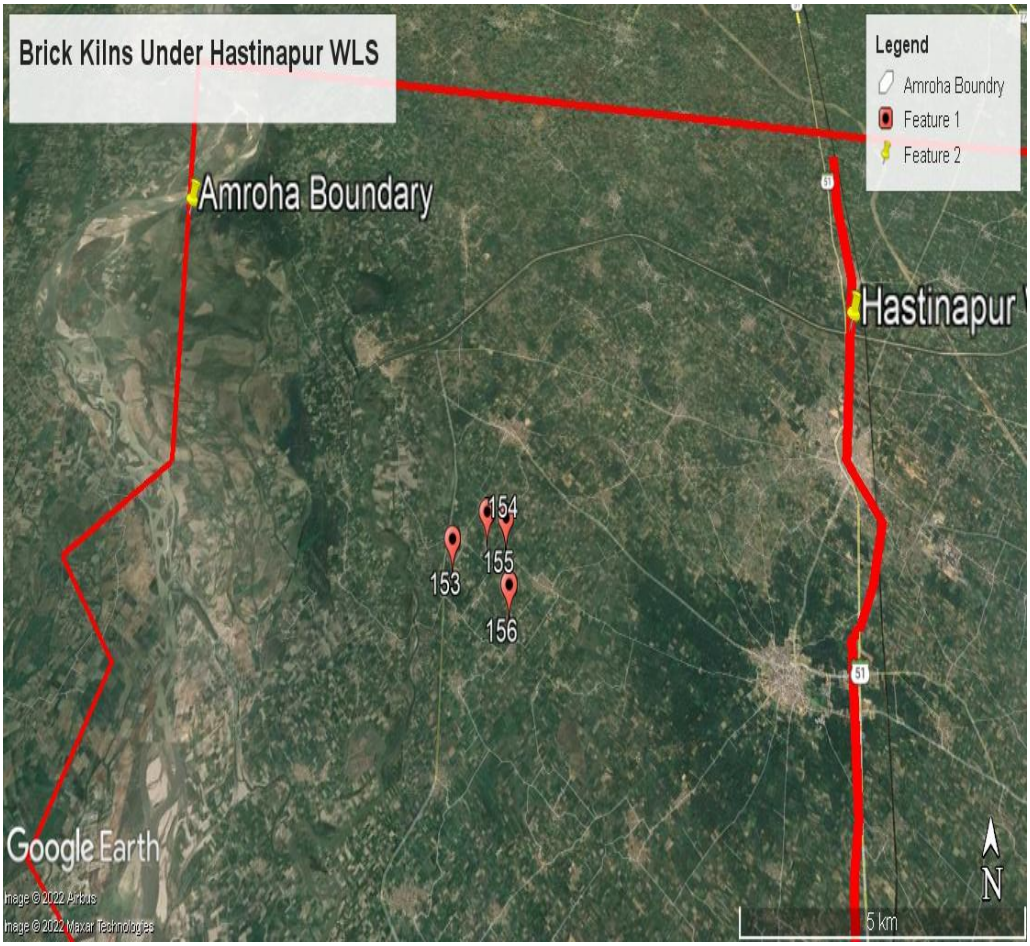


Figure 4.25: Distance from ESZ (JP Nagar)

4.10.8 Violations of norm regarding distance from Historical Monuments

Audit noticed that 11 brick kilns in district Sambhal were established within 5 km from Historical Monument, Jami Masjid[88], violating distance criteria.

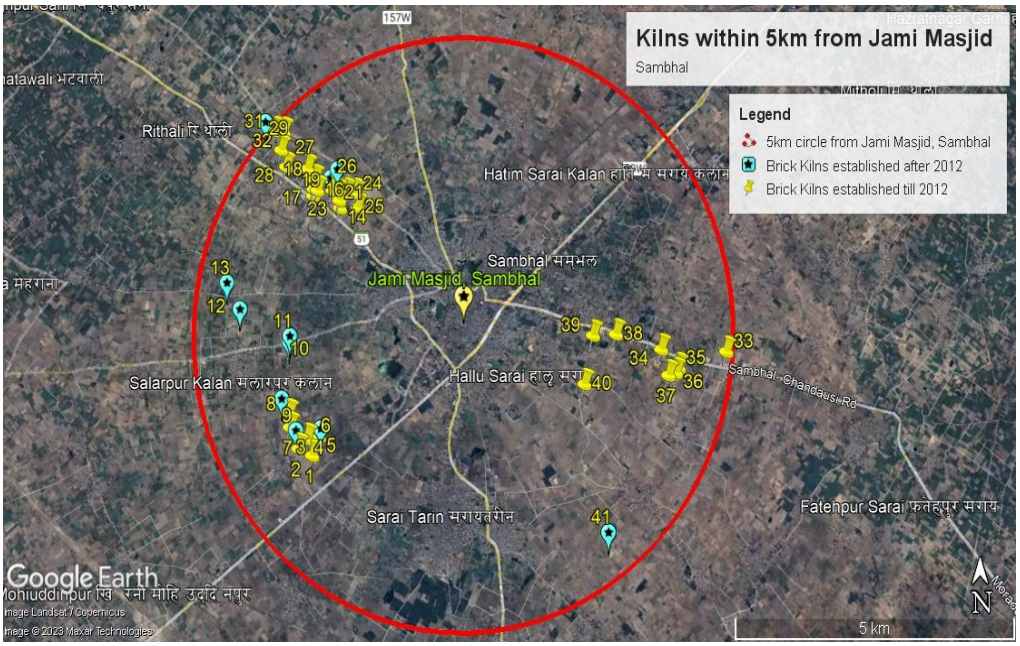


Figure 4.26: Distance from historical monuments (Sambhal)

The Government, in exit conference, stated that there is no provision for obtaining permission or license from Geology and Mining Department before setting up of brick kilns.

The reply of the Government is not acceptable because there is no integration between Geology and Mining Department and UPPCB. As a result, establishment of brick kilns is not monitored by both the Departments. However, UPPCB assured to examine these cases and provided information of district Kanpur Dehat. In one case UPPCB issued notice and stated in rest of the cases of district Kanpur Dehat that brick kilns were established as per the guideline. Reply of the UPPCB is not acceptable as these brick kilns were established after the enactment of the guidelines and did not follow the provision of establishment rules as seen in Google Earth imageries.

Recommendation 11:

The Government may ensure that all brick kilns established in violations of the norms and operating illegally are closed.

4.11 Conclusion

The Department overlooked the bid rate and recovered the royalty and price of mineral at the base rate from lessees who had illegally excavated minerals from the lease area and/or areas neighbouring the sanctioned lease area, which resulted in deprivation of potential revenue to the Government.

Cases of illegal mining outside lease areas and without grant of mining leases/permits were noticed through Google Earth and satellite imagery.

[88] Sl. No. 250 of Alphabetical List of Monuments – Agra Circle of Archaeological Survey of India.

The system used for monitoring e-transit passes lacked efficient input control mechanism. As a result, minerals were transported by vehicles not fit for transportation of minerals, lessees were able to issue e-MM-11 forms during prohibited months and beyond prescribed time limit, and the distances mentioned in these forms exceeded the actual distances. Further, it was observed that lessees did not adhere to sand mining guidelines, and brick kiln owners did not comply with the norms for their establishments, as evidenced by satellite imageries. Though the State Government implemented the Mining Surveillance System, it may be used effectively to prevent illegal mining in the State.