



भारत सरकार / Government of India  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय / Ministry of Environment, Forest & Climate Change  
क्षेत्रीय कार्यालय, भुवनेश्वर / Regional Office, Bhubaneswar  
ए ३, चंद्रसेखरपुर / A/3, Chandrasekharpur  
भुवनेश्वर - ७५१ ०२३ / Bhubaneswar - 751 023



Telephone: 0674 - 2301213, 2301248, 2302452, 2302453. E-mail: [roez.bsr-mef@nic.in](mailto:roez.bsr-mef@nic.in)

सं.5-ORA591/2023-BHU

दिनांक 17.11.2023

सेवा में,

अपर वन महानिदेशक (एफ.सी.),  
पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय,  
इंदिरा पर्यावरण भवन,  
जोरबाग रोड, अली गंज,  
नई दिल्ली - 110 003

**बिषय :** Proposal for seeking prior approval of the Central Govt. under Section 2 (ii) of the Forest (Conservation) Act, 1980 in favour of M/s Kashvi Power & Steel Pvt. Ltd. for non-forestry use of 60.508 ha of forest land including 2.331 ha of safety zone in Dholta Pahar Iron Ore Block for iron ore mining in Bonai Forest Division under Sundargarh District, Odisha

**संदर्भ:** मंत्रालय पत्र सं. 8-13/2023-FC दिनांक 15.08.2023.

महोदय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित प्रस्ताव का स्थल निरीक्षण उप. वन महानिरीक्षक (केंद्रीय) के द्वारा दिनांक **30.10.2023** को किया गया | स्थल निरीक्षण उपरांत स्थल निरीक्षण प्रतिवेदन एवं मंतव्य इस पत्र के साथ संलग्न भेजा जा रहा है |

अनु : यथोक्त।

भवदीय,  
**ए. टी. मिश्रा**  
(ए. टी. मिश्रा)  
उप वन महानिदेशक (के)

**RECOMMENDATION OF THE DY. DIRECTOR GENERAL OF FORESTS (CENTRAL) IN RESPECT OF DIVERSION OF 60.508 HA (INCLUDING 2.331 HA EARMARKED FOR SAFETY ZONE) OF RESERVED FOREST LAND IN DHOLTA PAHAR IRON ORE BLOCK OF MS/ KASHVI POWER AND STEEL PVT LTD. UNDER BONAI FOREST DIVISION IN THE DISTRICT OF SUNDERGARH UNDER SECTION 2 (II) OF FOREST CONSERVATION ACT, 1980**

The proposed site was inspected by Smt. Padma Mahanti, DIGF (C) on 30.10.2023 along with DFO, Bonai other officials from Forest Department and representative of the user agency. (The site inspection report is annexed as Annexure-I)

The instant proposal is for diversion of 60.508 ha (including 2.331 ha earmarked for safety zone) of reserved forest land in Dholta pahar iron ore block of M/s Kashvi Power and Steel Pvt Ltd. under Bonai forest division in the district of Sundergarh under Section 2 (ii) of Forest (Conservation) Act, 1980

**After inspection of the site the observation made by the Dy. Inspector General of Forests (Central) is as below:**

The proposed ML area of 60 ha is predominantly very dense forest with certain gaps on the top as it is situated on a plateau. There is no approach road to the proposed ML area. Road has been proposed and seen to be demarcated with pillar posting through the Sarkunda RF. The stream order 1 and 2 are seen to emanate from the proposed mining lease area as per the water shed map of the mining lease site. Hence, mining will impact the water table, water sources and may lead to contamination with nearby nallah and streams, if adequate precaution is not taken. Elephant movement along the water sources is noticed at 1.2 km from the proposed RF within the boundary of the Sarkunda RF. Mining and movement of heavy machinery in the Sarkunda RF will result in degradation of the forest and loss of habitat as is the case in many mines already operating in the area and may also result in human elephant conflict. 18 number of non working mines; 12 number of working mines; and 2 auctioned mines are present in the 10 km radius of the proposed mining lease area. The area around the proposed mining lease area is already disturbed. However, the proposed mining lease area is on an elevated plateau within the Sarkunda RF with very dense vegetation that makes it inviolate. Moreover, the proposed mining area is placed almost in the middle of the Sarkunda RF, which does not have any mining activity at present and is undisturbed housing a very good chunk of forest at this point of time and the Sarkunda RF is a contiguous and intact patch of sal forest in the heavily mined periphery and its strategic location on an elevated area makes it vulnerable to contamination of water sources down streams in case of mining in the proposed area.

Studies need to be conducted on the impact of mining in Sarkunda RF on loss of habitat of wildlife including mesopredator and small mammals, movement and dispersal of elephant. Studies on impact of mining on the hydrological regime of Sarkunda RF as well as the watershed of the proposed mining lease area within 10 km zone of influence need to be undertaken. Also studies on the eco-cultural linkages of the local communities with the Sarkunda sal forest needs to be studied to find the organic link between the forest and the

people of the region which is already heavily mined district and this forest chunk of 1901.108 ha appears to be a contiguous patch of forest in the mining dominated landscape.

The queries specifically asked by the Ministry vide letter dated 15<sup>th</sup> August, 2023 has been answered by the Dy. IGF (C) below based on site inspection, discussion held with DFO, Bonai and from the available records is as below :

i. **Connectivity of the proposed mining area:**

**Reply:**

The proposed mining lease area is not connected by any road. A proposed road marked with pillar postings is through the Sarkunda reserve forest along the slopes leading to the proposed ML area which is situated on a plateau. Nearest heavy traffic road is 2.48 km at an elevation difference of approximately 553 ft from the proposed ML area. The proposed mining area is at a distance of 3.6 km from SAIL mines and 1.8 km distance from C P Sharma mines.

ii. **The density on ground:**

**Reply:**

This is a mixed sal forest with rich under storey and undergrowth supporting multi species and multi layer forest which appears to be very dense from ocular observation.

iii. **Crop composition:**

**Reply:**

Sal (*Shorea robusta*), Sidha (*Lagerstroemia parviflora*), Kangada (*Xylia xylocarpa*), Siali (*Bauhinia vahlii*), Teak (*Tectona grandis*), Shisu (*Dalbergia sisoo*), Kusum (*Schleichera oleosa*), Bara (*Ficus bengalensis*), Harida (*Terminalia chebula*), Bahada (*Terminalia belerica*), Char (*Buchanania lanjan*), Jamu (*Syzygium cuminii*), Asan (*Terminalia tomentosa*), Kendu (*Diospyros melanoxylon*), Mahul (*Madhuca indica*), Kumbhi (*Careya arborea*), Mango (*Mangifera indica*) etc. are major species among flora observed during site inspection.

iv. **Impact of the mining on the watershed of the surrounding area :**

**Reply:**

Stream order 1 & 2 are present in the mining lease area. Hydrological study of the proposed mining lease area with a 10 km zone of influence needs to be undertaken to understand the impact of mining on the watershed of the surrounding area as the proposed ML area is on an elevated plateau land from where the stream orders 1 and 2 emanate.

v. **Impact of the mining on the elephant dispersal/habitat :**

**Reply:**

Movement of elephants to the water sources near the proposed mining lease was observed. In the year 2023, movement of elephant along the water source is seen at a distance of 1.2 km. Human wildlife conflict is already prevalent in this mining district of Sundergarh. Loss of habitat due to mining in Sarkhanda forest may also lead to human elephant conflict as elephants are reported to use the water source in the vicinity of proposed mine area. Elephant movement map is enclosed. The inviolate status of the proposed mining lease can be attributed to its very dense forest as well as its situation on a plateau. The proposed mining lease of 60.508 ha is situated in the middle of the Sarkunda RF which has an area of 1901.108 ha and at present has no mining activity within its boundary and is a patch of undisturbed contiguous forest.


From perusal of the proposal as well as the site inspection report of DIGF (Central), my observations are as below:

1. Total mining lease area comprises of 60.508 ha of Sarkunda RF only under Bonai Forest Division has been proposed.
2. The Mining Plan including Progressive Mine Closure Plan has been approved by Regional Controller of Mines, IBM, Bhubaneswar over 60.508 ha of Dholta Pahar Iron Ore Block of M/s Kashvi Power & Steel Pvt. Ltd. vide letter No.MA/A/21-ORI/BHU/2021-22/1414 dated 11.01.2022. A detailed Scheme of Reclamation and afforestation has been submitted by the user agency.
3. As reported, the project does not involve displacement of any human habitation. Hence, Resettlement and Rehabilitation Plan is not required.
4. The DIGF (C) in her site inspection has mentioned that no violation has been reported.
5. As reported the distance of project site from the nearest PA (Badrama Wildlife Sanctuary) is 84.04 Km. The project site is 20.36 Km away from the nearest Elephant Corridor (Karo-Karampada). As reported the applied area is not involved with any eco-sensitive zone/National Park/Sanctuary.
6. The density of vegetation is reported to be 0.6 (Eco Value Class-I) by the DFO, Bonai. But the DSS report says it is very dense (Inviolate).
7. It was reported by DFO, Bonai that elephant movement is present in the proposed mining area and the area is used by elephants. So comments from Chief Wildlife Warden may be sought.

8. Total 29,838 nos. of trees are to be felled. Removal of trees and disturbance to natural nallas has impact on the general ecosystem in terms of loss of habitat to fauna, soil moisture conservation, local climate etc. and being on a plateau is likely to impact the water recharge of the streams and nallas down stream. Studies on impact of mining on the hydrological regime of Sarkunda RF as well as the watershed of the proposed mining lease area within 10 km zone of influence need to be undertaken. Also studies on the eco-cultural linkages of the local communities with the Sarkunda sal forest needs to be studied.
9. In order to mitigate man-wildlife conflict and to minimize the impact of this project on wildlife, Wildlife Management Plan needs to be prepared and implemented. Studies need to be conducted on the impact of mining in Sarkunda RF on loss of habitat of wildlife including mesopredator and small mammals, movement and dispersal of elephant.
10. The mining lease does not have any access path. A road in the forest area has been proposed separately. The road should have been included in the instant proposal.
11. The proposed mining lease of 60.508 ha and is situated in the middle of the Sarkunda RF which is 1901.108 ha and at present no mining activity within its boundary and is a patch of undisturbed contiguous forest. The impact of mining in the proposed site on the undisturbed Sarkunda RF of 1901.6 ha required to be ascertained by the State Govt.
12. As reported by the DIGF (Central), 18 number of non working mines; 12 number of working mines; and 2 auctioned mines are present in the 10 km radius of the proposed mining lease area. The proposed mining area is at a distance of 3.6 km from SAIL mines and 1.8 km distance from C P Sharma mines.

Mining is a site specific activity. After receipt of the satisfactory compliance on the above observations the proposal for diversion of 60.508 ha of forest land may be considered under the provisions of FC Act, 1980.

Encl: Site inspection report of DIGF (C)

  
17/11/23  
(A.T. Mishra)

Dy. Director General of Forests (Central)

**SITE INSPECTION REPORT OF PROPOSAL SEEKING APPROVAL UNDER SECTION-2 (ii) OF FOREST CONSERVATION ACT, 1980 FOR GRANT OF LEASE OVER 60.508 HA (INCLUDING 2.331 HA EARMARKED FOR SAFETY ZONE) OF RESERVED FOREST LAND IN DHOLTA PAHAR IRON ORE BLOCK OF MS/ KASHVI POWER AND STEEL PVT LTD. UNDER BONAI FOREST DIVISION IN THE DISTRICT OF SUNDERGARH UNDER SECTION 2 (II) OF FOREST CONSERVATION ACT, 1980**

The site inspection of the above project was carried out by the undersigned on 30.10.2023 along with DFO, Bonai other officials from Forest Department and representative of the user agency.

**1. Legal status of the forest land proposed for diversion:**

The legal status of forest land is as follows:

Legal Status	Forest Area (in ha)
Reserved Forest	60.508
<b>Total</b>	<b>60.508</b>

**2. Item-wise break-up details of the forest land proposed for diversion.**

Sl. No.	Pattern of utilization	Area proposed (in ha)
1	Mining including mines road and mobile minerals processing unit	40.201
2	Waste dump with safeguard measures like retaining wall, garland drain and settling pond, check dams, etc.	7.265
3	Mineral stacking yard	6.021
4	Road	0.657
5	Infrastructure (office, workshop, fuel station, parking plaza, etc.)	1.498
6	Crushing and screening area	1.281
7	Magazine (0.019) with green belt (1.231 ha)	1.250
8	Entry and exist within safety zone area	0.004
	<b>Sub total</b>	<b>58.177</b>
9	Safety zone around ML boundary	2.331
	<b>Grand total</b>	<b>60.508</b>

**3. Whether proposal involves any construction of buildings (including residential) or not. If yes, details thereof:**

Yes, as per the pattern of utilization, office, workshop, fuel station, parking plaza are proposed in 1.498 ha area along with crushing and screening unit in another 1.281 ha area.

4. **Total cost of the project at present rates:**

The total cost of the project is reported to be Rs.12500 lakhs.

5. **Wildlife:**

As reported by the DFO, Bonai Forest Division, wild animals such as Elephant (*Elephas maximus*), Wild Boar (*Sus scrofa*), Hanuman Langur (*Presbytes entellus*), Rhesus macaque (*Macaca mulatta*), Indian hare (*Lepus nigricollis*), Indian Palm Squirrel (*Funambulus palmarum*), Jungle Cat (*Felis chaus*), Mongoose (*Herpestes edwardsi*), Porcupine (*Hystrix indica*), Jackal (*Canis aureus*), Hyaena (*Hyaena hyaena*) and different types of snakes and birds have been recorded from the applied area.

**Whether forest area proposed for diversion is important from wildlife point of view or not:**

The DFO, Bonai Forest Division has reported that the applied area is not involved with any eco-sensitive zone/ National Park/Sanctuary. During site inspection it was reported by DFO, Bonai that elephant movement is present in the proposed mining area and the area is used by elephants. *In Page No.78 of Working Plan (Bonai Forest Division), it is mentioned that human-elephant conflict is also recorded in Tamra Range. Jarda/Barsuan ranges adjoining Jharkhand and Keunjhar where human-elephant conflict is acute during migration of elephants. Elephant also migrate from Jharkhand to Sarkunda RF and create problems in Koira range. The Sarkunda Reserve Forest is located in Barsuan range.*

6. **Vegetation:**

The density of vegetation is reported to be 0.6 (Eco Value Class-I). During site inspection this area observed to be a pristine forest with sal dominates, situated on a plateau. The approach to the table top land was very dense forest with certain gaps on the top (plateau area).

(a) **Total number of trees to be felled.**

As reported, total number of trees to be felled is 29,838, which includes 1149 number of trees within safety zone. An average of 500 trees per hectare is estimated to be felled in the proposed mining lease area. Moreover, this is a mixed sal forest with rich under storey and undergrowth supporting multi species and multi layer forest clear felling of the areas shall impact the ecology of the Sarkunda reserve forest, which is undisturbed at this point of time and has no active mines within its boundary.

**Effect of removal of trees on the general ecosystem in the area:**

Removal of trees has impact on the general ecosystem in terms of loss of habitat to fauna, soil and moisture conservation, local climate, etc. and being on a plateau is likely to impact the water recharge of the streams and nallahs down stream. About 30,000 trees are to be felled in 60 ha of land which is a high number.

(b) **Important species:**

Sal (*Shorea robusta*), Sidha (*Lagerstroemia parviflora*), Kangada (*Xylia xylocarpa*), Siali (*Bauhinia vahlii*), Teak (*Tectona grandis*), Shisu (*Dalbergia sisoo*), Kusum (*Schleichera oleosa*), Bara (*Ficus bengalensis*), Harida (*Terminalia chebula*), Bahada (*Terminalia belerica*), Char (*Buchanania lanjan*), Jamu (*Syzygium cuminii*), Asan (*Terminalia tomentosa*), Kendu (*Diospyros melanoxylon*), Mahul (*Madhuca indica*), Kumbhi (*Careya arborea*), Mango (*Mangifera indica*) etc. are major species among flora observed during site inspection.

**Number of trees of girth below 60 cm.**

10665 (tree enumeration has been taken up over 16 numbers of sample plots)

**Number of trees of girth above 60 cm**

19173

**7. Background note on the proposal:**

As reported, M/s Kashvi Power & Steel Pvt. Ltd. is incorporated under Company Act, 1956 vide corporate identity No.U40100OR2009PTC011341/209-10 is a part of Kashvi Group. M/s Kashvi Power & Steel Pvt. Ltd. operates as a manufacturer of sponge iron, billet and ingots and exporter of minerals and the company has more than two and half decades of experience in the business of iron ore trading and exporting, manufacturing of sponge iron, billet and ingots.

The PCCF & HoFF, Odisha has reported that pursuant to the Mines and Minerals (Development and Regulation) Act, 1957 and the Mineral (Auction) Rules, 2015, Government of Odisha issued the notice inviting tender dated 07.07.2021 for commencement of the auction process to grant the mining lease for Dholta Pahar iron block located in Koira Tahsil of Sundergarh district of Odisha. The e auction process was conducted in accordance with the tender document and the mineral auction rule, 2015 for said mineral block and M/s Kashvi Power and Steel Ltd was declared as the preferred Bidder under Rule 9(9) (iii) or Rule 10 (A) of Auction Rules having quoted a final price offer of 126.55%.

The PCCF & HoFF, Odisha has reported that M/s Kashvi Power and Steel Pvt Ltd has made payment of Rs.6,99,89,587 through treasury challan on 21.10.2021 against the first installment being twenty percent of the upfront money. Accordingly, the Government of Odisha has issued Letter of Intent under Rule 10(2) of Mineral Auction Rules, 2015 to M/s Kashvi Power and Steel Pvt Ltd for grant of Mining Lease for Dholta Pahar Block for iron ore over an area of 60.508 ha near Dengula village, Koira Tahsil of Sundergarh district of Odisha for a period of 50 years. This letter of Intent is valid subject the provision of the Act and the Rules made there under as amended from time to time and M/s Kashvi Power and Steel Pvt. Ltd shall be designated as the successful Bidder and subsequently granted the mining lease only upon satisfactory compilation of all requirements under the Act and Rules made there under.

M/s Kashvi Power and Steel Pvt Ltd has submitted the proposal to obtain diversion of 60.508 ha of forest land including safety zone area of 2.331 ha of iron ore mining under



Section 2 (ii) of the Forest (Conservation) Act, 1980 in their favour within the allotted Dholta Pahar Iron Ore Block of 60.508 ha located in Sarkunda Reserve Forest in Koira Tahsil and Barsuan Range under Bonai Forest Division of Sundergarh district of Odisha.

As reported, the Mining Plan has been approved by the Indian Bureau of Mines vide their Letter No.MP/A/21-ORI/BHU/2021-22/1414 dated 11.01.2022. Production target has been fixed at 2 MT of ROM/annum which is planned to be achieved in 1<sup>st</sup> year of the plan period. The ore body needs to be judiciously exploited in view of systematic mining with optimum exploitation of ore to meet the growing demand of raw materials for indigenous steel plant, sponge iron plant, pellet plants, etc. for ultimate production of steel and also for export to earn foreign exchange for development of our country. The estimated geological resource of iron ore is calculated as 23.92 Million tons established under G2 level as per Geological Report provided by the State Government. As per present available borehole data, which is likely to increase after detailed exploration under G1 level. Considering the 2.0 Million ton production of iron ore per annum, the life of the mines is 12 years from the execution of mines. As per the Rule 12 (3) of MCDR, 2017, the holder of mining lease shall carry out detailed exploration (G-1 level) over entire lease area within a period of 5 years from the date of opening of the mine.

As reported by the DFO, Bonai Division, the entire block area comprises of 60.508 ha which is entirely Reserved Forest land (comes under Sarkunda RF of Bonai Forest Division).

**8. Compensatory afforestation:**

As reported, non forest revenue land over 58.757 ha has been identified in village San-sibnathpur of Gurundia Tahasil in Sundargarh district. The site was visited during site inspection. CA is in single patch with different plots. Agriculture patches area also seen in one corner of the plot. Here regeneration of Sal is quite good and needs adequate protection, watch and ward and fencing. Hence, instead of 1600 plants/ha over 52 ha and 1000/ha over 5 ha, a maximum of 400 plants (Sal and associates need to be planted in the CA site). The balance proposed sapling can be taken up in additional CA land. The proposal for CA needs to be revised accordingly.

- (a) **Whether land for compensatory afforestation is suitable from plantation and management point of view or not:**

Land suitability certificate has been submitted by the DFO, Bonai Forest Division.

- (b) **Whether land for compensatory afforestation is free from encroachment/other encumbrances:**

Certificate regarding land for compensatory Afforestation has been free from encroachment/other encumbrances has been submitted. On perusal of State Forest Headquarters letter dated 24.07.2023 addressed to the AIGF (FC), Ministry of Environment, Forest and Climate Change, New Delhi, it is mentioned that *the kachha road visible in the area does not exist as a Godharsa road (Chala Path) kisam of which is not recorded as Rasta as revealed from the village map of Sab-Sibnathpur. Further, the portion of the proposed land for compensatory Afforestation which seems as mined area is area with dept*

*of some quantity of soil was excavated from those areas during construction of Rukura Irrigation Project (Dam) in the year 2011 and the proposed area 58.575 ha for the purpose of Compensatory Afforestation is not part of any mining lease and is not proposed for mining. The area is also free from all encumbrances and encroachment.*

- (c) **Whether land for compensatory afforestation is important from Religious/Archaeological point of view:**

Not applicable.

- (d) **Land identified for raising compensatory afforestation is in how many patches, whether patches are compact or not:**

The land for CA is in 3 patches (28.414 ha, 19.474 ha and 10.869 ha) and the patches are compact.

- (e) **Map with details:**

Submitted.

- (f) **Total financial outlay:**

The total financial outlay of the CA scheme is Rs.2,80,84,400.

9. **Whether proposal involves violation of Forest (Conservation) Act, 1980 or not. If yes, a detailed report on violation including action taken against the concerned officials:**

As reported by the DFO, Bonai Forest Division, no violation has been reported under FC, Act 1980. During site inspection also, no violation was observed.

10. **Whether proposal involves rehabilitation of displaced persons. If yes, whether rehabilitation plan has been prepared by the State Government or not :**

As per report of the DFO, Bonai Forest Division, the project does not involve displacement of any human habitation. Hence, resettlement and rehabilitation plan is not required.

11. **Reclamation plan:**

Reclamation plan has been submitted.

**Details of financial allocation:**

As reported by the user agency, the expenditure to be incurred towards reclamation is 88,08,028.

12. **Details on catchment and command area under the project:**

Not applicable.

**Catchment area treatment plan to prevent siltation of reservoir:**

Not applicable.

**13. Cost benefit ratio:**

The cost benefit ration comes to 1:94.264.

**14. Recommendations of the Principal Chief Conservator of Forests/State Government:**

Recommended by PCCF, Odisha/State Government.

**15. Recommendations of Deputy Director General of Forests (Central) along with detailed reasons:**

*Enclosed in the report.*

**16. Conservator of Forests (Central) shall give detailed comments on whether there are any alternative routes/alignment for locating the project on the non-forest land:**

N.A.

**17. Utility of the project:**

The project will reportedly generate employment for about 100 nos. of persons directly which will be mostly local people. It will also create indirect employment for about 150 persons.

**Numbers of Scheduled Caste/Scheduled Tribes to be benefited by the project:**

Not reported.

**18.**

**(a) Whether land being diverted has any socio-cultural/ religious value:**

As reported, there is no Archeological/Heritage/Defence establishment or any other monuments located in the area.

**(b) Whether any sacred grove or very old growth trees/forests exist in the areas proposed for diversion:**

Not reported. However, the proposed site is a pristine forest with Sal dominates and Sal trees hold an important place in the socio-cultural religion practices of the local communities of Sundergarh and Keonjhar districts which are tribal dominated districts.

**(c) Whether the land under diversion forms part of any unique eco-system:**

The DFO, Bonai Forest Division has reported that there is no Archeological/Heritage/Defence establishment or any other important monuments located in the area.

**19. Situation with respect to any Protected Area:**

The distance of project site from the nearest Protected Area (Badrama Wildlife Sanctuary) is 84.04 Km. The project site is 20.36 Kms away from the nearest Elephant Corridor (Karo-Karampada).

**20. Any other information relating to the project:**

**Observations**

The proposed ML area of 60 ha is predominantly very dense forest with certain gaps on the top as it is situated on a plateau. There is no approach road to the proposed ML area. Road has been proposed and seen to be demarcated with pillar posting through the Sarkunda RF. The stream order 1 and 2 are seen to emanate from the proposed mining lease area as per the water shed map of the mining lease site. Hence, mining will impact the water table, water sources and may lead to contamination with nearby nallah and streams, if adequate precaution is not taken. Elephant movement along the water sources is noticed at 1.2 km from the proposed RF within the boundary of the Sarkunda RF. Mining and movement of heavy machinery in the Sarkunda RF will result in degradation of the forest and loss of habitat as is the case in many mines already operating in the area and may also result in human elephant conflict. 18 number of non working mines; 12 number of working mines; and 2 auctioned mines are present in the 10 km radius of the proposed mining lease area. The area around the proposed mining lease area is already disturbed. However, the proposed mining lease area is on an elevated plateau within the Sarkunda RF with very dense vegetation that makes it inviolate. Moreover, the proposed mining area is placed almost in the middle of the Sarkunda RF, which does not have any mining activity at present and is undisturbed housing a very good chunk of forest at this point of time and the Sarkunda RF is a contiguous and intact patch of sal forest in the heavily mined periphery and its strategic location on an elevated area makes it vulnerable to contamination of water sources down streams in case of mining in the proposed site.

Studies need to be conducted on the impact of mining in Sarkunda RF on loss of habitat of wildlife including mesopredator and small mammals, movement and dispersal of elephant. Studies on impact of mining on the hydrological regime of Sarkunda RF as well as the watershed of the proposed mining lease area within 10 km zone of influence need to be undertaken. Also studies on the eco-cultural linkages of the local communities with the Sarkunda sal forest needs to be studied to find the organic link between the forest and the people of the region which is already heavily mined district and this forest chunk of 1901.108 ha appears to be a contiguous patch of forest in the mining dominated landscape.

**The queries specifically asked by the Ministry vide letter dated 15<sup>th</sup> August, 2023 and in the DDGF (Central), RO, Bhubaneswar letter dated 21.09.2023 are answered below based on site inspection, discussion held with DFO, Bonai and from the available records :**

**i. Connectivity of the proposed mining area:**

**Reply:**

The proposed mining lease area is not connected by any road. A proposed road marked with pillar postings is through the Sarkunda reserve forest along the slopes leading to the proposed ML area which is situated on a plateau. Nearest heavy traffic road is 2.48

km at an elevation difference of approximately 553 ft from the proposed ML area. The proposed mining area is at a distance of 3.6 km from SAIL mines and 1.8 km distance from C P Sharma mines.

**ii. The density on ground:**

**Reply:**

This is a mixed sal forest with rich under storey and undergrowth supporting multi species and multi layer forest which appears to be very dense from ocular observation.

**iii. Crop composition:**

**Reply:**

Sal (*Shorea robusta*), Sidha (*Lagerstroemia parviflora*), Kangada (*Xylia xylocarpa*), Siali (*Bauhinia vahlii*), Teak (*Tectona grandis*), Shisu (*Dalbergia sisoo*), Kusum (*Schleichera oleosa*), Bara (*Ficus bengalensis*), Harida (*Terminalia chebula*), Bahada (*Terminalia belerica*), Char (*Buchanania lanjan*), Jamu (*Syzygium cuminii*), Asan (*Terminalia tomentosa*), Kendu (*Diospyros melanoxylon*), Mahul (*Madhuca indica*), Kumbhi (*Careya arborea*), Mango (*Mangifera indica*) etc. are major species among flora observed during site inspection.

**iv. Impact of the mining on the watershed of the surrounding area :**

**Reply:**

Stream order 1 & 2 are present in the mining lease area. Hydrological study of the proposed mining lease area with a 10 km zone of influence needs to be undertaken to understand the impact of mining on the watershed of the surrounding area as the proposed ML area is on an elevated plateau land from where the stream orders 1 and 2 emanate.

**v. Impact of the mining on the elephant dispersal/habitat :**

**Reply:**

Movement of elephants to the water sources near the proposed mining lease was observed. In the year 2023, movement of elephant along the water source is seen at a distance of 1.2 km. Human wildlife conflict is already prevalent in this mining district of Sundergarh. Loss of habitat due to mining in Sarkhanda forest may also lead to human elephant conflict as elephants are reported to use the water source in the vicinity of proposed mine area. Elephant movement map is enclosed. The inviolate status of the proposed mining lease can be attributed to its very dense forest as well as its situation on a plateau. The proposed mining lease of 60.508 ha is situated in the middle of the

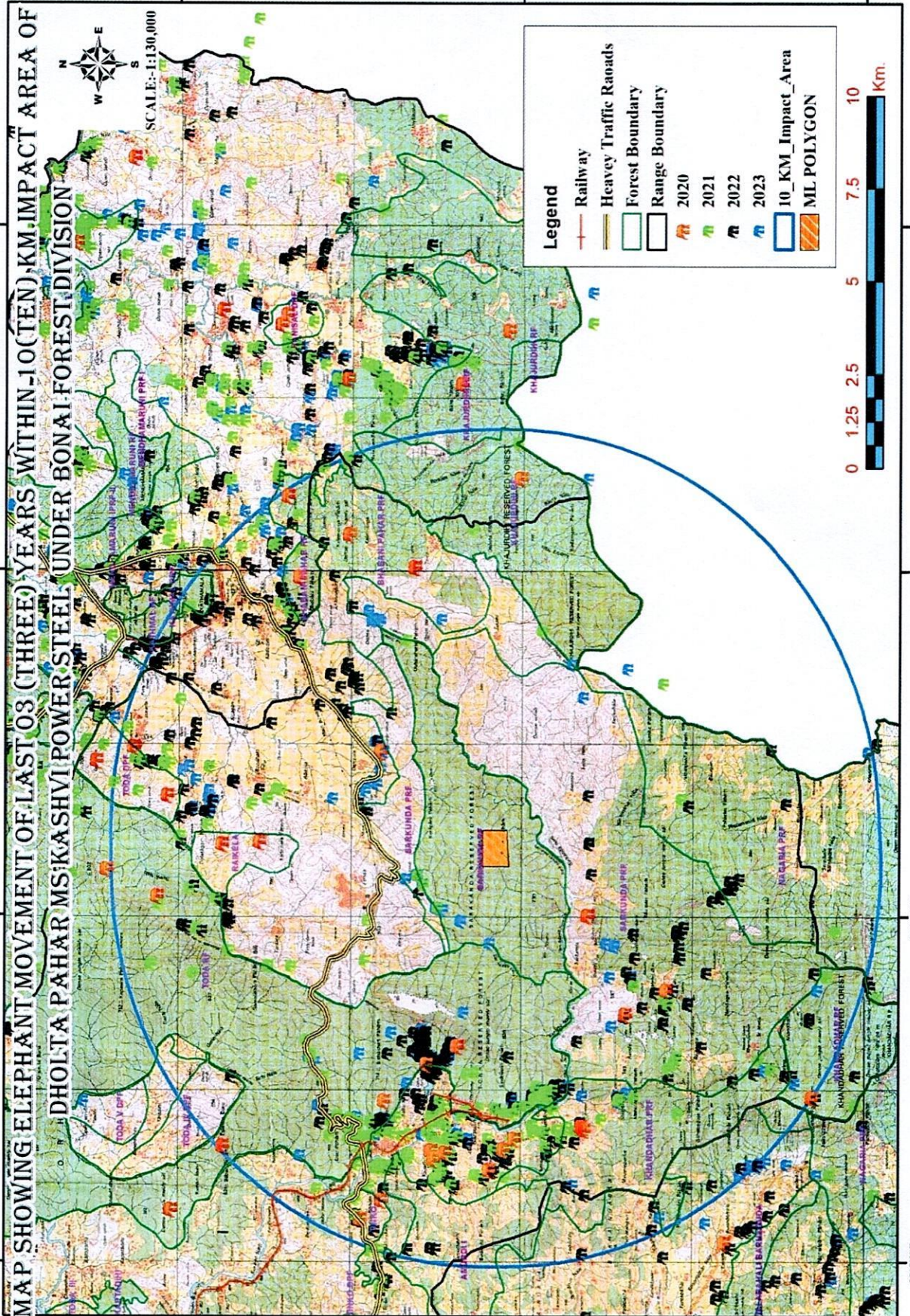
Sarkunda RF which has an area of 1901.108 ha and at present has no mining activity within its boundary and is a patch of undisturbed contiguous forest.

Annexures:

1. Elephant movement map
2. Watershed map
3. Map of Sarkunda forest

*Padma Mahanti*

**(PADMA MAHANTI)  
DIGF (CENTRAL)**



**MAP SHOWING ELEPHANT MOVEMENT OF LAST 03 (THREE) YEARS WITHIN 10 (TEN) KM. IMPACT AREA OF DHOITA PAHAR MSKASHVI POWER STEEL UNDER BONAI FOREST DIVISION**

SCALE:- 1:130,000



**Legend**

- Railway
- Heavy Traffic Raoads
- Forest Boundary
- Range Boundary
- 2020
- 2021
- 2022
- 2023
- 10\_KM\_Impact\_Area
- ML\_POLYGON

85°50'E 85°10'0"E 85°20'0"E

21°45'0"N 21°50'0"N 21°55'0"N

85°50'E 85°10'0"E 85°20'0"E

# MAP SHOWING 10(10) KM IMPACT FOREST AREA OF DHOLTA PAHARMS KASHMI POWER STEEL IN BONAI FOREST-DIVISION

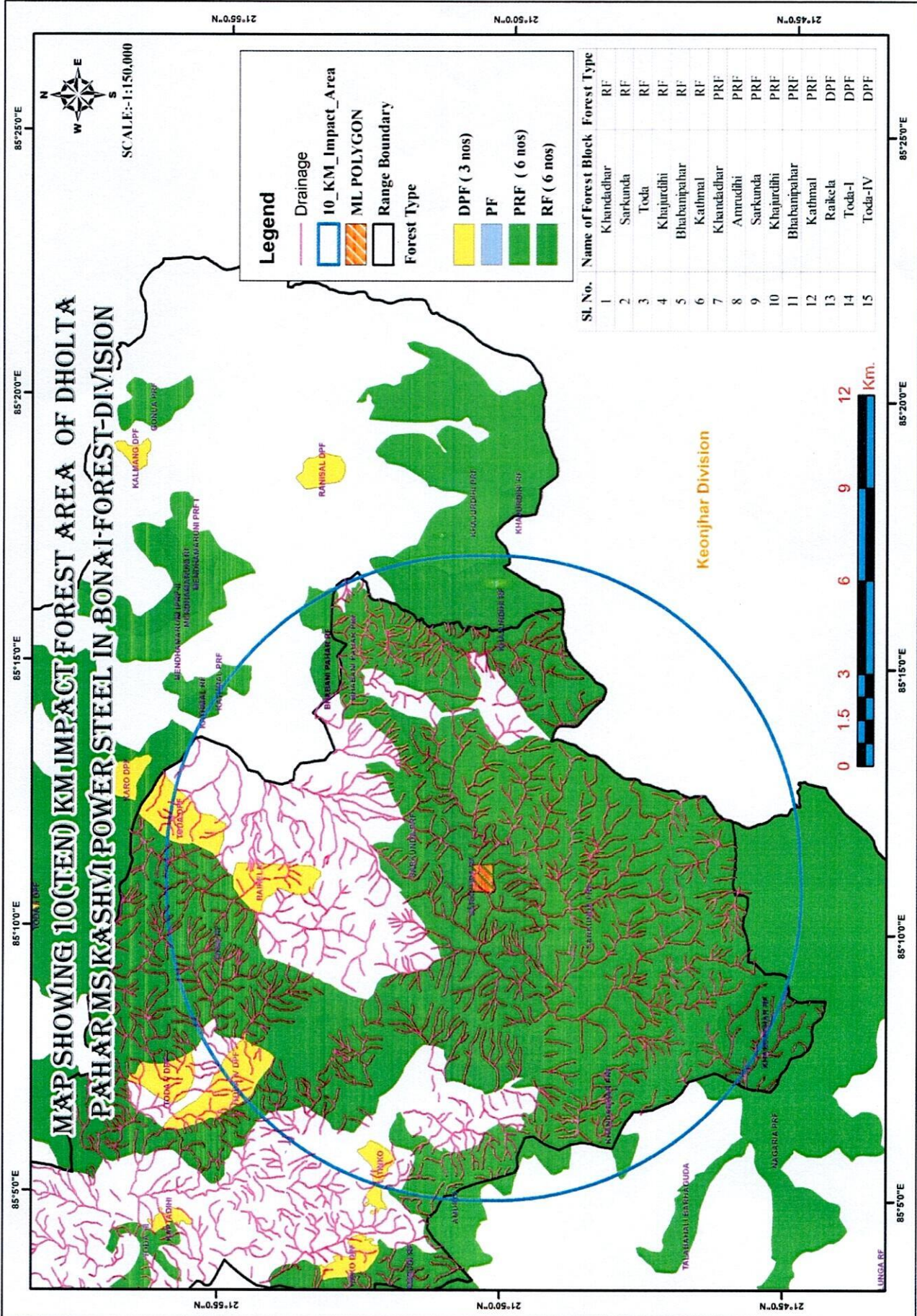


SCALE:- 1:150,000

**Legend**

- Drainage
- 10\_KM\_Impact\_Area
- ML POLYGON
- Range Boundary
- Forest Type
  - DPF ( 3 nos)
  - PF
  - PRF ( 6 nos)
  - RF ( 6 nos)

Sl. No.	Name of Forest Block	Forest Type
1	Khandadhar	RF
2	Sarkunda	RF
3	Toda	RF
4	Khajurdhi	RF
5	Bhabanipahar	RF
6	Kathmal	RF
7	Khandadhar	PRF
8	Amrudhi	PRF
9	Sarkunda	PRF
10	Khajurdhi	PRF
11	Bhabanipahar	PRF
12	Kathmal	PRF
13	Rakela	DPF
14	Toda-I	DPF
15	Toda-IV	DPF



Keonjhar Division



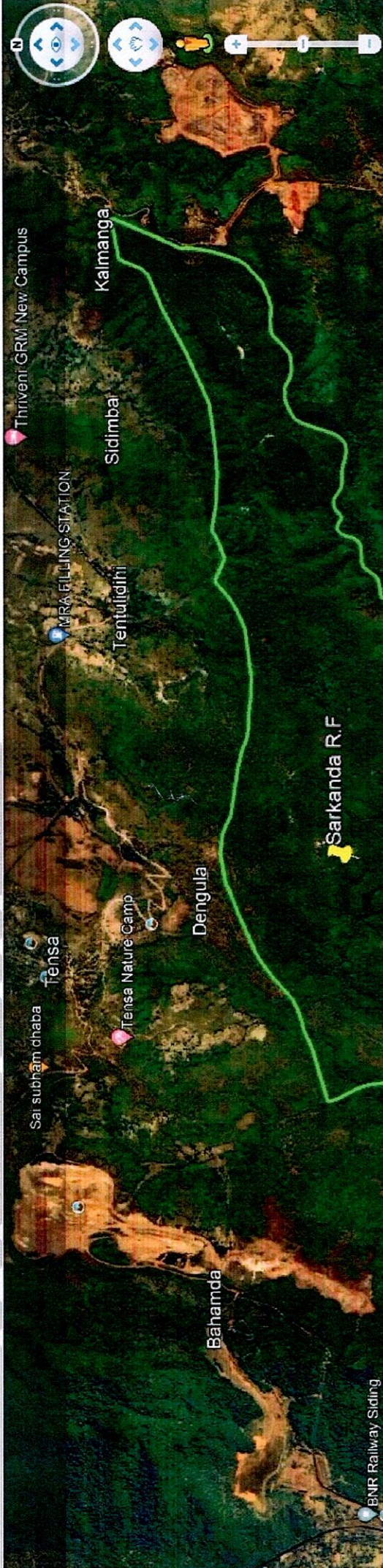


Image © 2023 Maxar Technologies  
Image © 2023 Airbus  
Image © 2023 CNES / Airbus

Activate Windows  
Go to Settings to activate Windows.  
Kadakala Google Earth  
Imagery Date: 2/9/2022 21°50'29.95" N 85°11'13.41" E elev 2625 ft eye alt 43148 ft  
32°C Partly sunny  
ENG IN 11/2/2023 1:11 PM



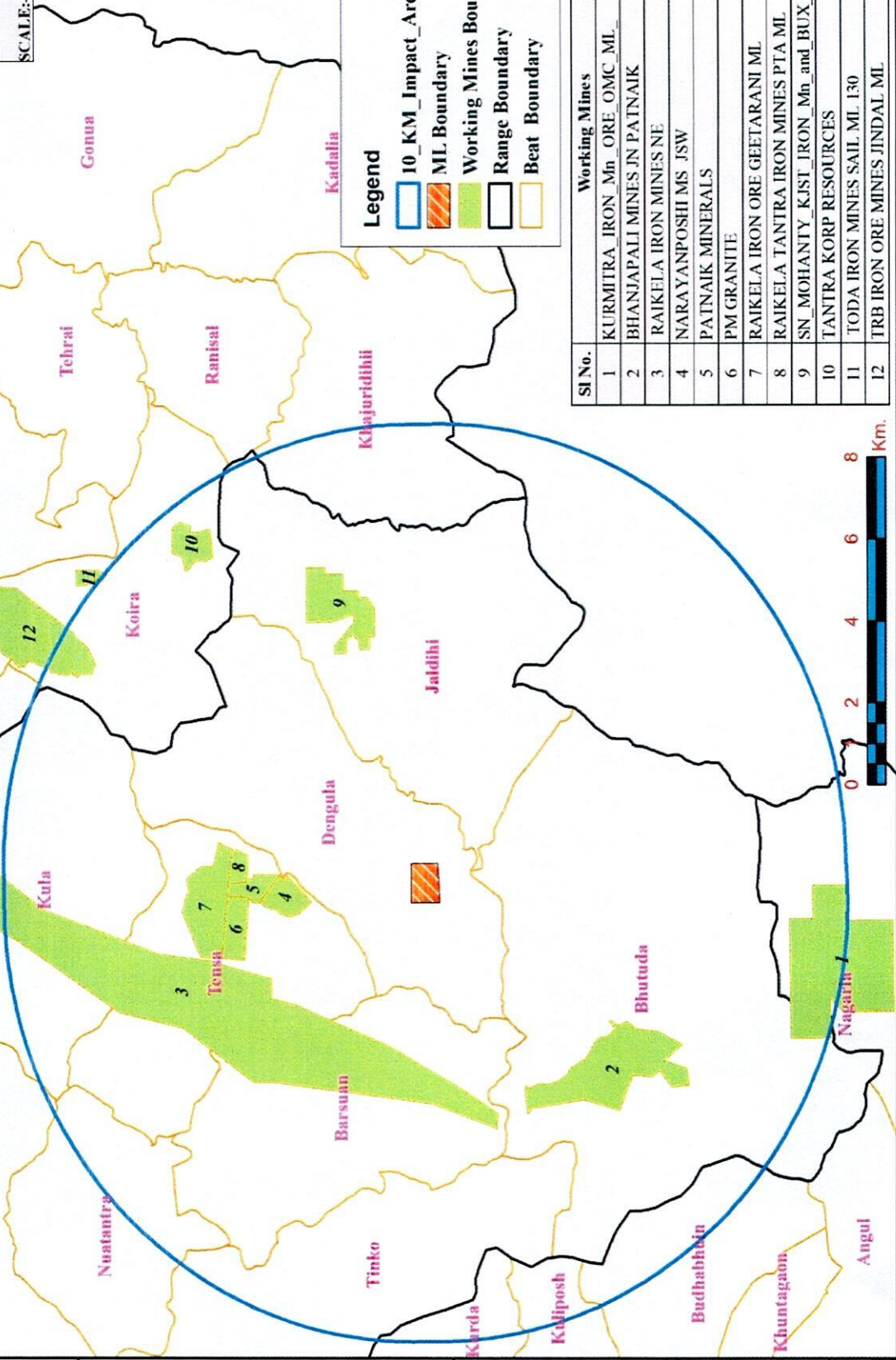
**MAP SHOWING WORKING MINES PRESENT WITHIN 10 (TEN) KM IMPACT AREA OF  
DHOLTA PAHAR MS KASHVI POWER STEEL UNDER BONAI FOREST DIVISION**



**Legend**

- 10\_KM\_Impact\_Area
- ML Boundary
- Working Mines Boundary
- Range Boundary
- Beat Boundary

SI No.	Working Mines
1	KURMITRA_IRON_Mn_ORE_OMC_ML
2	BHANJIAPALI MINES JN PATNAIK
3	RAIKELA IRON MINES NE
4	NARAYANPOSHI MS JSW
5	PATNAIK MINERALS
6	PM GRANITE
7	RAIKELA IRON ORE GEETARANI ML
8	RAIKELA TANTRA IRON MINES PTA ML
9	SN_MOHANTY_KIST_IRON_Mn_and_BUX_ML
10	TANTRA KORB RESOURCES
11	TODA IRON MINES SAIL ML 130
12	TRB IRON ORE MINES JINDAL ML








85°5'0"E 85°10'0"E 85°15'0"E 85°20'0"E

21°45'0"N 21°50'0"N 21°55'0"N

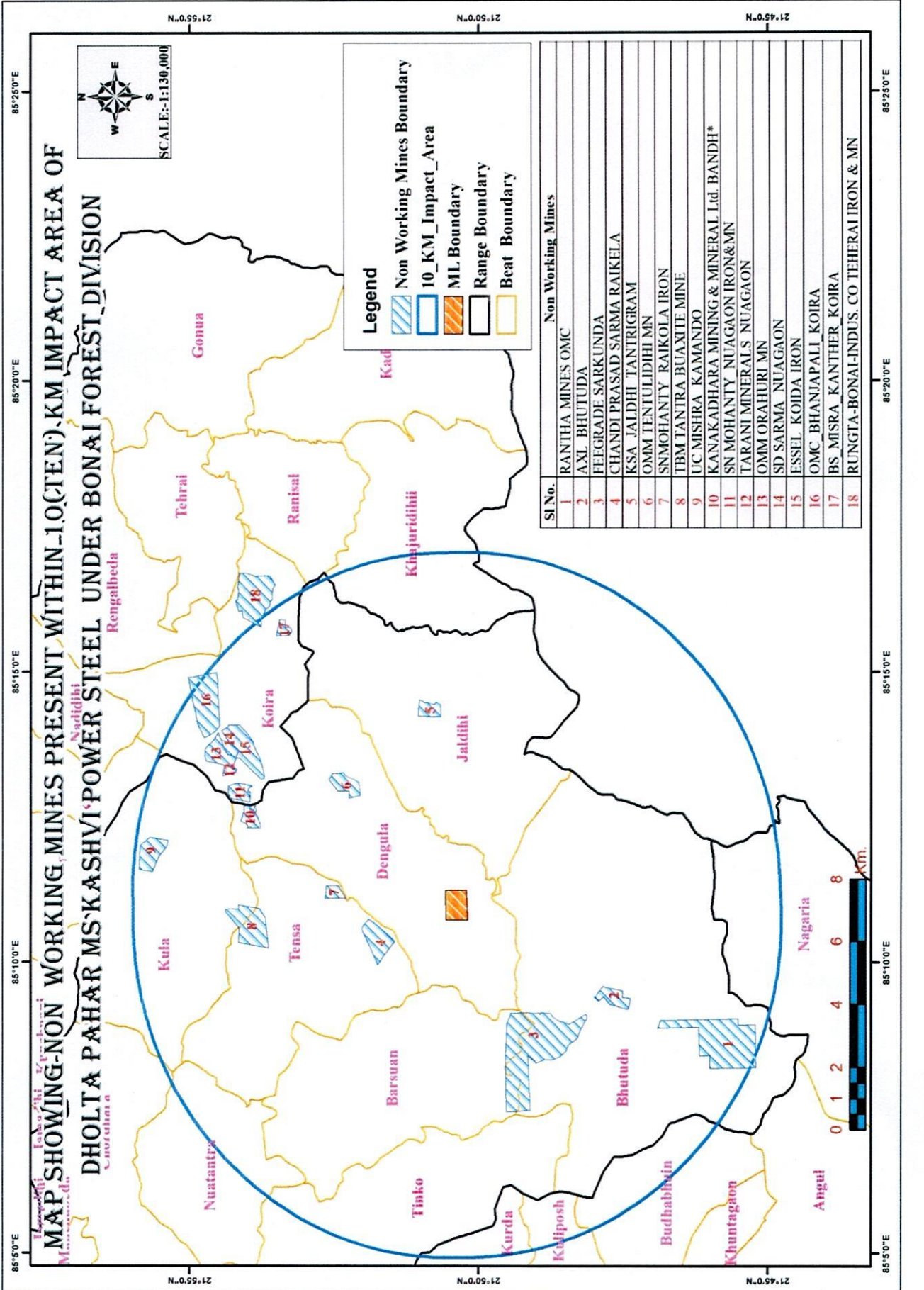
**MAP SHOWING NON WORKING MINES PRESENT WITHIN 10 (TEN) KM IMPACT AREA OF  
DHOLTA PAHAR MS KASHVI POWER STEEL UNDER BONAI FOREST DIVISION**



**Legend**

-  Non Working Mines Boundary
-  10\_KM\_Impact\_Area
-  ML Boundary
-  Range Boundary
-  Beat Boundary

Sl No.	Non Working Mines
1	RANTHA MINES OMC
2	AXL BHUTUDA
3	FEEGRADE SARKUNDA
4	CHANDI PRASAD SARMA RAIKELA
5	KSA JALDHI TANTRIGRAM
6	OMM TENTULIDIHI MN
7	SNMOHANTY RAIKOLA IRON
8	TBM TANTRA BUAXITE MINE
9	UC MISHRA KAMANDU
10	KANAKADHARA MINING & MINERAL Ltd. BANDH*
11	SN MOHANTY NUAGAON IRON&MN
12	TARANI MINERALS NUAGAON
13	OMM ORAHURI MN
14	SD SARMA NUAGAON
15	ESSEL KOIDA IRON
16	OMC BHANJAPALI KOIRA
17	BS MISRA KANTHER KOIRA
18	RUNGTA-BONAI-INDUS. CO TEHERAI IRON & MN





Google Earth

Go to Springs to edit

Imagery Date: 3/15/2022 21°47'35.11" N 84°51'29.02" E elev. 870 ft eye alt. 6511 ft

Image ©2023 Maxar Technologies

1985

11/2/2023

ENG

AUD/INR

+0.61%



Type here to search