FIELD INSPECTION REPORT (STATUS REPORT) IN RESPECT OF DIVERSION OF 68.00 HA OF FOREST LAND (49.34 HA OF NON-FOREST LAND RECORDED AS 'FOREST' AS ON 25.10.1980 AND 18.660 HA OF NON-FOREST LAND HAVING ENOUGH FOREST GROWTH TO BE CONSIDERED AS "FOREST" IN LINE WITH THE ORDERS DT. 12.12.1996 OF HON'BLE SUPREME COURT IN WP(C) NO. 202/1995) IN RESPECT OF UNCHABALI (MAHAPARBAT) IRON ORE MINES OF _M/S OMC LTD INCLUDING 11.240 HA OF FOREST LAND LOCATED IN THE SAFETY ZONE IN VILLAGE UNCHABALI AND BALDA UNDER BARBIL TAHASIL WITHIN THE JURISDICTION OF KEONJHAR FOREST DIVISION IN KEONJHAR DISTRICT, ODISHA.

1. Legal status of the forest land proposed for diversion

Non-forest land recorded as forest as on 25.10.1980: 49.339 ha.

Non-forest land having forest growth considered as "treated forest": 18.660 ha

Total: 68.00 ha

2. Item-wise break-up details of the forest land proposed for diversion (in ha):

Sl. No.	Item	Land use Pattern applied under FC Act, 1980 in ha.					
1	Mining	44.954					
2	Dumping of over burden	2.166					
3	Infrastructure for site services and weight bridge	5.205					
4	Mineral rejects	3.250					
5	Road	0.110					
6	Nala	1.075					
	Sub-Total Sub-Total	56.760					
7	Safety Zone	11.240					
	Total	68.00					

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

No.

4. Total cost of the project at present rates:

The total cost of the project comes to 23 crores.

5. Wildlife:

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

The proposed area does not form part of any National Park, Wildlife Sanctuary, Biosphere Reserve and it does not come under any wildlife corridor. But, occasional movement of wild elephants is noticed in the area besides other wildlife animals. The applied site falls under elephant habitat zone-2 as mentioned by ORSAC, Bhubaneswar.

6. Vegetation:

As reported, the applied area for diversion is situated adjacent to Baitarani RF. Eco-Value Class has been treated as "Eco-value Class-I" based on proximate location – Baitarani RF and canopy density has been considered at par with Baitarani RF and kept at 0.5.

(a) Total number of trees to be felled.

As reported by the State Government, 1,872 nos. of trees of different floral species above 30 cm girth comprising of 415 nos. of sound trees, 1457 nos. of unsound trees and 4764 nos. of poles below 30 cm girth have been enumerated.

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

Soil erosion is likely to increase following felling of trees in the undulating topography.

(b) Important species:

Unchabali mining lease having non-forest land recorded as forest as on 25.10.1980 and non-forest land having forest growth considered as "deemed forest", is located in proximity of Baitarani Reserved Forest in Keonjhar district. The forest area has been treated under Eco-Value Class-I category. The geological formation of this area is quite suitable for growth of Sal. Sal constitutes around 70 to 75% of the top canopy. The middle storey is un-conspicuous.

The principal associates of Sal includes Terminalia alata, Lagerstroemia parviflora, Anogeissus latifolia, Terminalia bellirica, Syzygium cumini, Mangifera indica, Schleichera oleosa, Adina cordifolia, Pterocarpus marsupium, Bombax ceiba, Bridelia retusa, Madhuca indica. The middle story is represented by Syzygium cumini, Ougeinia ougenensis, Careya arborea, Treama orientalis, Emblica officinalis, Cassia fistula etc. The shrubs and undergrowth are characterized by Indigfera pulchella, Ardisia solanacea, Flemingia chhapar, Helicteres ixora and Clerodendron viscosum etc. The prevailing climbers include Bauhinia vahlii, Combretum decandrum and Butea parviflora. The grasses over the forest floor include Chrysopogon aciculatus, Imperata cylindrica, Dicanthiurn carricosum, Cynodon dactylon etc.

Number of trees of girth below 60 cm.

Around 1278 nos. of less than 60 cm trees

Number of trees of girth above 60 cm.

Around 594 nos of greater than 60 cm trees

7. Background note on the proposal:

As reported by the State Government, the Unchabali (Mahaparbat) Iron Ore Mines of Odisha Mining Corporation (OMC) Ltd. over 68.00 ha was earlier having non-forest land entirely during grant/execution of Mining lease. The ML is located in village Unchabali and Balda of Barbil Tahasil of Keonjhar district, Odisha. This iron ore mining lease was granted in favour of M/s Odisha Mining Corporation (M/s OMC Ltd.), a State Govt. Undertaking, vide proceedings of the Govt. of Odisha in erstwhile Mining and Geology Department bearing No. III (A) SM.5/99-6327 dated 11.06.2003. The lease deed was executed on dated 09.06.2008 for a period of 20 years with validity up to 09.06.2028. The ML area located within jurisdiction of Champua Forest Range of Keonjhar Forest Division in Keonjhar district, finds place within the Latitude of 21°52' 42.54" N to 21°53'23.54" N and longitude of 85° 25' 5.66"E to 85° 25'36.49"E on Survey of India Topo-sheet No. F 45 N 5. The area exhibits an undulating topography with varying elevations from 525.00 m to 608.50m above Mean Sea Level (AMSL). Although the total mining lease hold area over 68.0 ha was non-forest land having

Kisam Parbat-II entirely, yet pursuant to the issue of guidelines bearing F No. 8-78/1996-FC (pt.) dt.10.03.2015 read with F No. 8-78/1996-FC(pt.) dt. 09.03.2016 by MoEF& CC, Govt. of India, status of the land involved in the mining lease as on 25.10.1980 was provided by the Tahasildar, Barbil. As reported by PCCF, Odisha, the ML area has 49.340 ha of non-forest land in village Unchabali recorded as 'Forest land' as on 25.10.1980 and 18.660 ha of non-forest land in village Balda which stands un-surveyed as on 25.10.1980. The un-surveyed non-forest land in village Balda, having enough forest growth, has been considered as "forest" as per orders of Hon'ble Supreme Court dt. 12.12.1996 in WP(C) 202/1995. Thus the mining lease granted/executed over 68.00 ha, involves 49.34 ha of non-forest land recorded as 'Forest' as on 25th October 1980 and 18.660 ha of non-forest land having enough forest growth considered as "forest".

As reported by DDM, Joda in his letter No. 6370 dt. 26.12.2017 to DFO, Keonjhar, above leasehold area was also earlier held by OMC Ltd. within their ML area over 686.73 ha for iron ore in village Balda, Unchabali etc which had been executed on 6.8.1963 for a period of 20 years. Later OMC Ltd. had surrendered the said area which has been accepted by Government w.e.f. 1.9.1982. Thereafter the area was thrown open for re-grant of the area. It has also been reported by the DDM, Joda that during this period, OMC had only undertaken prospecting operation through drilling of a no. of trial pits but no mining operation was undertaken by OMC Ltd. during the period.

It is further reported by the DDM, Joda that excavation done previously by M/s Essel Mining & Industries Ltd had crossed the Southern boundary of existing Unchabali Mining lease of OMC Ltd at CC1 lease line. This broken up area in the ML area over 68 ha. is to an extent of 1.923 ha. In view of issue of guidelines bearing F No. 8-78/1996-FC (pt.) dt.10.03.2015 read with F No. 8-78/1996-FC(pt.) dt. 09.03.2016 by MoEF& CC, Govt. of India, the user agency i.e. OMC Ltd. has applied for diversion of 68 ha. of forest land in this lease under section 2 of Forest Conservation Act. 1980.

This Unchabali (Mahaparbat) Iron Ore Mines of M/s OMC Ltd falls under the physiographic - Joda Barbil plateau extending from Chamakpur to the border of Singhbhum of Jharkhand in north and border of Bonai in the west. This region is an southward extension of Singhbhum rocks. This group of rocks comprising trap, tuffites, shale, quartzite, phyllite, Banded Haematite Jasper (BHJ) and Banded Haematite Quartzite(BHQ) form high hill ranges with narrow deep valley. This region is characterized by massive deposit of iron and manganese ore associated with B.H.J. and shales. The iron ore precipitates are in the form of oxide, carbonates, silicates and sulphides. The most characteristics feature of the iron ore i.e haematite is its availability in the form of massive beds, pockets and large lensoid soil bodies. Hard massive, Laminated, Lateritoid & Blue dust are the major form of ore located in this physiographic zone.

The most characteristic feature of associated manganese ore is its occurrence in form of pocket, lenses in the shales of the iron ore group. It is also seen extensively as residual deposit. Manganese ore deposits are mostly confined to the Singhbhum-Bonai belt of Keonjhar district associated with BIF of Iron ore group. The ore minerals are chiefly pyrolusite and psilomelane. The important manganese deposits of the district are located at Roida, Sidhamatha, Bhadrasahi, Guruda, Joda, Harmath-Guali and Bamebari. The mineable reserve of Iron ore established so far is 239 Million Ton of + 55 % Fe grade.

Scheme of mining with Progressive Mines Closure Plan pertaining to Unchabali Iron ore mining lease has been approved by IBM in letter No. MS/FM/13-ORI/BHU/2014-15 dt. 13.2.2015. The mining lease area contains a total mineable reserve of 10,630 million tonnes of Iron Ore. Considering the annual production capacity of the mine is 1.0 Million ton of iron ore, the estimated life period of the mine is 11 years.

8. Compensatory afforestation:

As reported by the State Government, 65.591 ha of non-forest Government land has been identified for compensatory afforestation against 56.76 ha. of forest land proposed for diversion for mining and other allied activities (excluding safety zone of 11.24 ha.) within ML area of 68 ha. in village Kerapai under Thuamul Rampur Tahasil of Kalahandi district. The compensatory afforestation area has been jointly verified by the Forest and Revenue officials and has been found to be free from encroachment and encumbrances and suitable for bald hill plantation over 61.6396 ha and ANR plantation over 3.9514 ha. The DFO, Kalahandi (South) Division has prepared a site specific Compensatory Afforestation scheme to raise bald hill plantation in block mode (1600 plants per ha.) over 61.6396 ha and ANR without gap plantation over 3.9514 ha (600 plants per ha.) @ current wage rate of Rs.200/- per manday. The species selected for planting are Neem, Karanj, Amla, Harida, Bahada, Mango, Arjun, Teak, Sissoo, Char, Mahul etc. It also includes provision of barbed wire fencing over 3.906 KM. The CA scheme has been technically approved by the Addl. PCCF (Forest Diversion) and Nodal Officer, FC Act with a total financial forecast of Rs.2,00,37,300/- including maintenance cost of 10 years. The User Agency has furnished an undertaking to pay the cost of raising Compensatory Afforestation.

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

As reported by the State Government, the C.A. area has been jointly verified by the Forest and Revenue officials and has been found to be free from encroachment and encumbrances and suitable for bald bill plantation over 61.6396 ha and ANR plantation over 3.9514 ha.

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

As reported, the land for compensatory afforestation has been found to be free from encroachment and encumbrances.

(c)	Whether land for compensatory afforestation is important from Religious/Archaeological point								
	of view:								
	No Archaeological monument or protected defence establishment is located inside the applied area.								
(d)	Land identified for raising compensatory afforestation is in how many patches, whether								
	patches are compact or not:								
	As reported by the State Government, 65.591 ha of non-forest Government land has been identified								
	for Compensatory afforestation against 56.76 ha of forest land proposed for diversion for mining and								
	other allied activities (excluding safety zone of 11.24 ha.) within ML area 68 ha in village Kerapai								
	under Thuamul Rampur Tehasil of Kalahandi district. The compensatory afforestation area has been								
	jointly verified by the Forest and Revenue officials and has been found to be free from encroachment								
	and encumbrances and suitable for bald hill plantation over 61.6396 ha. and ANR plantation over								
	3.9514 ha.								
(e)									
f)	Maps have been provided with the proposal. Total financial outlay:								
1)	The C.A. Scheme has been technically approved by the PCCF (FD & NO, FC Act) with a total								
	financial forecast of Rs. 2,00,37,300/- including maintenance cost of 10 years.								
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:								
	Although the DFO, in his site inspection report has indicated that 1.923 ha of land has been broken up which includes 0.208 ha in the safety zone of the mining lease treating the land as nonforest land, yet the DDM, Joda has reported that excavation done previously by M/s Essel Mining & Industries Ltd had crossed the Southern boundary of existing Unchabali Mining lease of OMC Ltd at CC1 lease line. This broken up area in the ML area over 68 ha. is to an extent of 1.923 ha. Hence OMC Ltd. does not have any role in breaking of the land in this mining lease. No other								
10	field violation has been reported by the DFO, Keonjhar.								
10.	Whether proposal involves rehabilitation of displaced persons. If yes, whether rehabilitation								
	plan has been prepared by the State Government or not: The project does not involve displacement of any human habitation.								
11.									
11.	As reported, reclamation will be carried out as per the approved Mining Plan by IBM.								
	Details and financial allocation:								
	-								
12.	Details on catchment and command area under the project:								
	NA								
	Catchment area treatment plan to prevent siltation of reservoir:								
	NA .								
13.	Cost benefit ratio:								

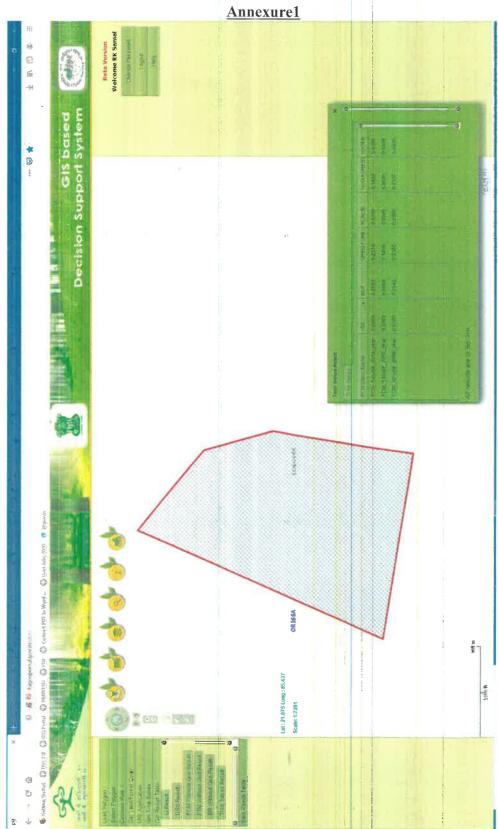
	The cost benefit ratio comes to 1:137.15.								
14.	Recommendations of the Principal Chief Conservator of Forests/State Government:								
	Recommended by PCCF, Odisha / State Government.								
15.	Recommendations of Addl. Principal Chief Conservator of Forests (Central) along with detailed								
	reasons:								
	-								
16.	Conservator of Forests 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:								
	Numbers of Scheduled Caste/Scheduled Tribes to be benefited by the project:								
	As reported by the agency, the project will generate direct and indirect employment for more than								
	134 and 670 local tribal people respectively.								
18.									
(a)	Whether land being diverted has any socio-cultural/ religious value:								
	No, the land being diverted has no socio-cultural/ religious value, as reported.								
	Whether any sacred grove or very old growth trees/forests exist in the areas proposed for								
(b)	diversion:								
	No, there is absence of any sacred grove or very old growth trees/forests in the areas proposed for diversion, as reported.								
(c)	Whether the land under diversion forms part of any unique eco-system:								
	As reported, the land under diversion does not form part of any unique eco-system.								
19.	Situation with respect to any Protected Area:								
	The proposed lease area does not fall within any National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve.								
20.	Any other information relating to the project:								
	The Ministry vide letter No. 8-21/2018-FC, dated 2 nd November, 2020 has directed to inspect diversion of 68.00 ha of forest land (49.34 ha of non-forest land recorded as "Forest" as on 25 th October, 1980 and 18.660 ha of non-forest land having enough forest growth to be considered as "Forest" in line with the orders dated 12.12.1996 of Hon'ble Supreme Court of WP(C) No. 202/1995) in respect of Unchabali (Mahaparbat) Iron Ore Mines of M/s OMC Ltd. Including 11.240 ha of forest land located in the safety zone in village Unchabali and Balda under Barbil Tahasil within the jurisdiction of Keonjhar Forest Division in Keonjhar district, Odisha.								
	The site inspection was carried out on 13.01.2021 and the following observations are recorded. • The 68.0 ha of land proposed for mining lease of Unchabali Project has not been worked by OMC.								

- The forest is moderately dense to open in the proposed lease area.
- 18.66 ha of land earlier recorded as non-forest but subsequently having enough forest growth to be considered as forest falls in the proposed mining lease area. This is covered with vegetation and can be classified as open to moderately dense forest as per DSS. Copy enclosed as Annexure 1. The time series maps of the 68.00 ha and 18.8 ha is attached for years 2009, 2012 & 2014 as Annexure 2. Photographs of the proposed mining area during site inspection are also attached as Annexure 3. From the available time series maps, it is seen that in year 2009, this area has open to moderately dense forest which has subsequently increased to moderately dense (MDF) forest to open forest in year 2014 and moderately dense forest to open forest in year, 2019. The DSS time series from year 2009 to 2012 shows increase in canopy density from open to MDF. The Changes in the time series are depicted in the following table:

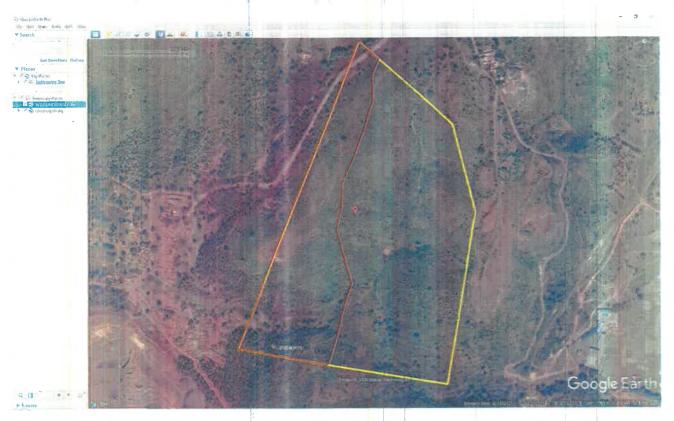
Year 2009 (in ha.)	Year 2012 (in ha.)	Year 2014 (in ha.)
OF- 23.65	MDF- 46.08	MDF- 25.93
MDF- 23.40	OF- 16.06	OF- 23.19
NF- 21.05	NF- 5.96	NF- 18.98
68.10	68.10	68.10

- The FCM report obtained from FSI for 68.8 ha and 18.66 ha shows no variance in forest cover from 2010-11 to 2017-18. This is in the 1:50,000 scale, copy enclosed as Annexure 4. Micro level change in vegetation cover may not be possible from 1:50,000 scale. This could have been possible with large scale mapping of 1:4,000 scale. The FSI report of the 18.66 ha shows an area of 13.59 ha. as open forest and 8.24 ha as moderately dense forest (years 2017-18), copy enclosed as Annexure 4.
- The safety zone plantation of 7.5 mtrs around the mining area has been undertaken by the user agency. It has been predominantly planted with Teak. However, the Teak was not found to be of desirable growth. This area is basically having lateritic soil and is a natural region for Sal. The plantation status of the safety zone has to be evaluated & monitored by the local DFO and wherever Teak has not thrived well, it can be replaced with Bamboo species or species indigenous to the area with intensive planting technique so as to ensure a green belt along the boundary of the entire mining area of 68.00 ha.
- The CA plantations can be raised with indigenous species like Sal and associates of Sal with undergrowth, shrubs and grasses, indigenous to the area (as mentioned in point No. 6(b), Page-2 of the report) with multi-canopy and multi-storey intensive planting techniques instead of Teak, Sissoo, Mahua, Karanja and other woody species, so as to result in a near natural forest with multiple storeys of indigenous species. The C.A. scheme can be revised.

Paolue Mahanti (PADMA MAHANTI) DIGF (CENTRAL)



DSS Time Series Analysis Results



Google Earth image of diversion land area (Date: 14.02.2019)

Decision Support System (DSS):

Decision Rul II

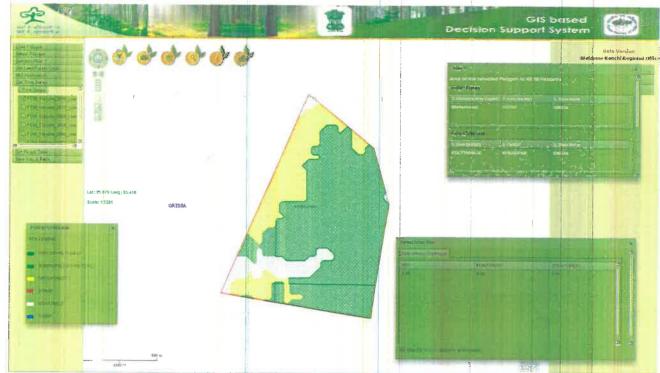
In terms of stindards followed in ISFR 2015 (interpretation of satellite data period 2013-2014) regarding density classes:

• Area f Proposed Land (DSS Calculated): 68.00 hectare.

L No	Forest Cover	Area in hectare				
1	MODERATELY DENSE FOREST	46.00				
2	OPEN FOREST	16.00				
3	NON FOREST	06.00				
	Total area	68.00				

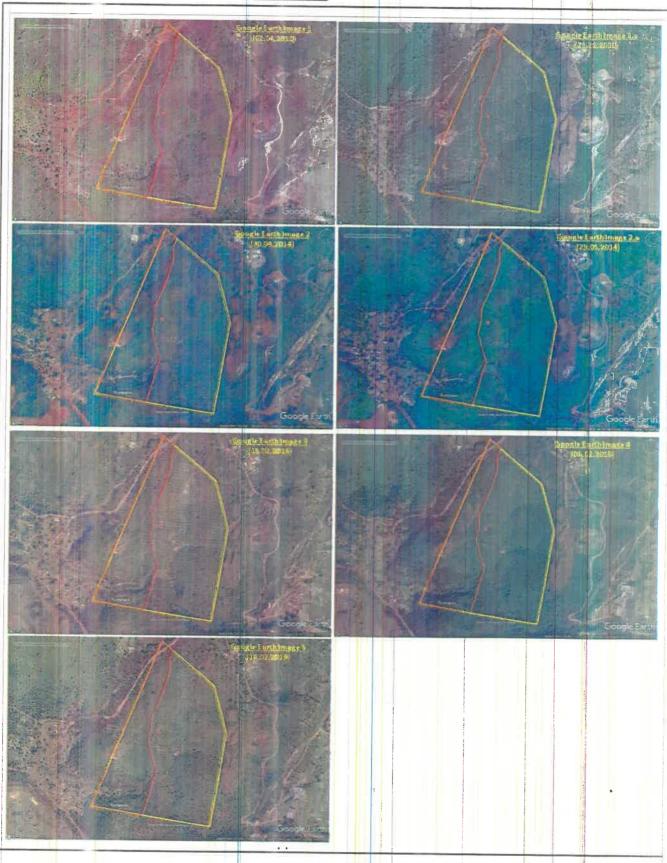
Forest Cover information of proposed land

❖ FOR ST COVER MAP

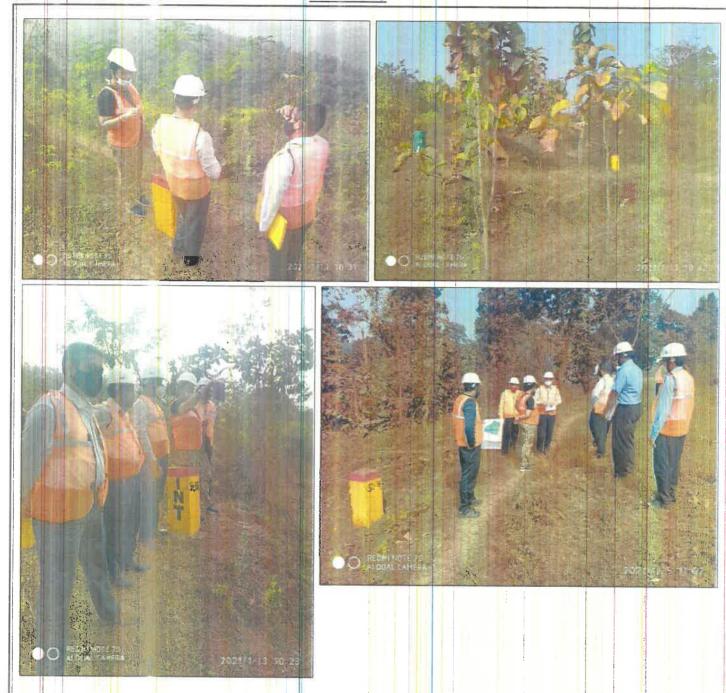


, FCM (2014) of proposed Forest Diversion Land

Annexure2



Annexure 3



Annexure 4 Forest Cover Map and Area provided by FSI

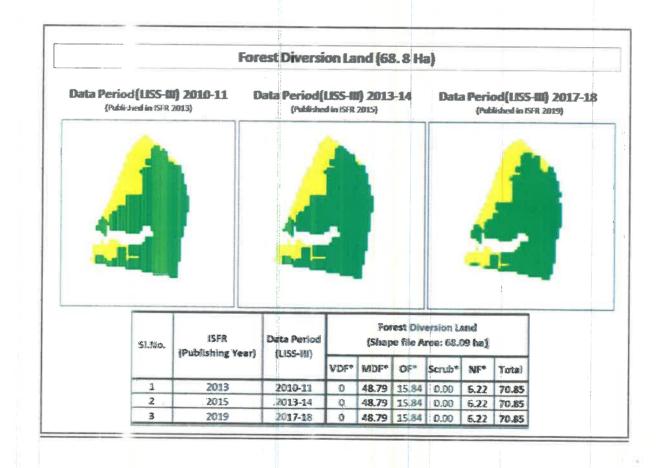
FCM AREA FIGURES (RASTER BASED ANALYSIS (LISS-III DATA))

(Ames in that

SLNo.	ISFR (Publishing Year)	Data Period	Forest Oliversion Land (Shape file Area: 65,09 ha)					(CA Land (Shape file Aries: 65.53 ha.)						Dispubed Land (Shape file Area 23,87 ha)						
	frankanna and france		VIDIF*	MIDIF	Ok.	Scrub*	Miles	Total	VDF*	MIDIF"	OF*	Scrute*	Maria	Total	VDF*	MIDIF*	(O)F*	Sonib*	NIP*	Total
1	2013	2010-11	0	48.79	15.84	43,4303	6.22	70.85	0.00	(9(1)(0)	43.77	0.00	25.92	69.69	0.00	8.24	13.59	(0.00)	4.72	26.55
2	2015	2013-14	O	48.79	15.44	0.00	6.22	70.85	0.00	CMLCS	43111	0.00		69,69	_		13.59		41.72	26.55
3	2019	2017-18	0	48,79	15.84	OAR	6.22	70.85	0.00	4,26	39.51	100,000		69,09	-		13.59			26.55

^{*} Very Dense Forest (VDF) - All lands with forest cover having a canopy density of 70 per cent and above.

Note: KMUs and Shape file for the above analysis have been provided by Regional Office, Shubbneshwar.



[&]quot;Moderately Dense Forest (MDF) - All lands with forest cover having a canopy density of between 40 to 70 per cent.

^{*}Open Forest (OF) - All lands with forest cover having a canopy density between 10 to 40 per cent.

[&]quot;Scrulb - Degraded forest lands having a camppy density lies than 10 per cent." Won Forest (NF) - Land without forest cover.

