



Proposal for Diversion of Forest Land over 303.066 ha in respect of Bamebari Iron & Manganese Mines Lease of Tata Steel Limited in Villages Palasa (Ka), Kundaposi, Namira, Jadibahal, Jajanga, Khandbondh & Boneikela under Barbil Tahasil in the Keonjhar district of Odisha.

Annexure- I(A)

ANNEXURE-I (A)

**JUSTIFICATION
FOR USE OF FOREST LAND AT BAMEBARI IRON & MANGANESE MINES
IN THE DISTRICT OF KEONJHAR**

INTRODUCTION

The Mining lease for exploitation Iron & Manganese of 1150.550 ha comprises of 3 blocks namely Bamebari, Joribar and Baneikela under Barbil Tahasil of Keonjhar District and was sanctioned in favour of M/s. Tata Steel Ltd by the Maharaja of Keonjhar for 30 years with effect from 1.04.1930 to 31.03.1960. This lease was renewed by Government in Department of Mining & Geology and lease deed was executed on 28.04.1971 for a period of 20 years with effect from 1.04.1960 to 31.03.1980. The 2nd renewal of the above lease was sanctioned by Government in Department of Mining & Geology vide letter No. 2851/MG dated 16.02.1982 for 20 years from 01.04.1980 to 31.03.2000 for mining of Manganese & Manganiferous Iron Ore. Tata Steel Limited had applied 3rd renewal vide RML No.700 dated 5.01.1999 for Bamebari Iron & Manganese lease covering an area of 464.000 hectares (Bamebari Block 140.000 ha, Joribar Block 91.000 ha and Boneikela Block 233.000 ha) confining to villages Palasa(Ka), Kundaposi, Namira, Bandhuabeda, Jadibahal, Khondbondha, Jajang, Boneikela, Thakurani RF and Sidhamath RF as per rule 24(A)(1) of Mineral Concession Rules-1960.

As per Orders of the Hon'ble Supreme Court dated 02.05.2014 in I.A. No. 3763 of 2014 and 16.05.2014 in Common Cause (supra), the Company was asked by Deputy Director of Mines, Joda to stop mining operations in the Bamebari Iron & Manganese Mines and accordingly Company stopped mining operations & communicated the same to the Deputy Director of Mines vide letter No GM/OMQ/42/16-A, dated 17.05.2014. The Company thereafter kept following up with the State Government to issue its Express Orders under Section 8(3) of the MMDR Act, 1957.

That on 31.05.2014, the State Government vide order No. III (A) SM-06/2006 4076/SM, Bhubaneswar issued Express Orders under Section 8(3) of the MMDR Act in respect of the Bamebari Iron & Manganese Mines of the Company.

That on 31.05.2014, the Company communicated its acceptance of the terms and conditions mentioned in the aforesaid Express Order dated 31.05.2014 vide letter No. TSL/ML/0925/2014 to the Additional Secretary to Government, Steel and Mines Department, Government of Odisha. The Deputy Director Mines vide letter No. 2338/Mines dated 31.05.2014 allowed to resume mining operation in Bamebari Iron & Mn. Mines.

Subsequently the State Government vide letter No III(A) SM-14/2006 3298/SM dated 18.04.2015 extended the validity period of Bamebari Iron & Mn. Mines up to 31.03.2030 under section of 8A of the MMDR Amendment Act, 2015.



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Accordingly, a Supplementary Lease Deed was executed and registered on dated 08.05.2015 in respect of Bamebari Iron & Manganese Mines Lease.

The Block wise details of original lease and reduced area in the renewal application is as follows :-

BLOCK	ORIGINAL LEASE AREA	APPLIED R.M.L. OVER REDUCED AREA
Bamebari	364.620 ha	140.000 ha
Joribar	170.000 ha	91.000 ha
Baneikala	615.930 ha	233.000 ha
Total	1150.550 ha	464.000 ha

The Company submits that it has all other statutory clearances in respect of its Bamebari Iron & Manganese Mines which are set out hereunder:

- Environment Clearance granted vide Ref. No. J-11015/85/2004-IA. II (M), Dt.17.11.2005 for 0.83 LTPA of Manganese Ore.
- Consent to Operate granted vide Ref No. 3623/IND-I-CON-189, Dt.10.03.2021 valid up to 31.03.2022.
- Review of Mining Plan approved vide Ref. No RMP/A/08-ORI/BHU/2020-21, Dt. 03.08.2020.
- Stage-II Forest Clearance granted vide Ref. No. 8-72/2004-FC dt 25.01.2007 over an area of 145.329 ha of forest land.

Bamebari Lease comprises of three blocks whose locations are depicted in Reference Plate No. I, Survey of India Topo Sheet No. 73 G/5 & F/8 (New Topo Sheet No. F45N5 & F45H8).

Longitude : Between

Bamebari Block - 85°-25'-00" E and 85°-27'-00" E.

Joribar Block 85°-24'-00" E and 85°-26'-00" E.

Boneikala Block - 85°-24'-00" E and 85°-26'-00" E.

Latitude : Between

Bamebari Block - 21°-53'-00" E and 21°-55'-00" E.

Joribar Block - 21°-55'-00" E and 21°-57'-00" E.

Boneikala Block - 21°-01'-00" E and 22°-04'-00" E

The Company with its on-going expansion of its Steel making capacities envisages enhancing the ferro manganese production capacity at its exiting Ferro Alloys Plant at Joda from 0.0504 MTPA to 0.060 MTPA, installing new silico manganese plant of 0.060 MTPA and one sinter plant of 0.050 MTPA within the existing plant at Joda. The Public hearing for the purpose has already been successfully completed on 12.11.2014 and presentation was made before EAC on 26.03.2015 and on 02.07.2015. Subsequently, MoEF & C.C was pleased to grant the Environmental Clearance for the aforesaid purpose vide Letter F.No.J-11011/03/2012-IA II (I) dated 5th November 2015.



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Further, company has proposal to acquire Silico Manganese (SiMn) capacities of 50000 TPA for greater value addition to the low grade and medium grade ore produced during the mining operation which otherwise has no other use.

The Project is situated under Joda Forest Section under Champua Forest Range & Beleipada Forest Section under Barbil Forest Range of Keonjhar Forest Division, in the State of Orissa. The lease area is coming under Reserve Forest, Khesra Forest, DLC Forest, Non-forest land recorded as forest as on 25.10.1980, as well as Government Non-Forest Land and tenanted land.

Manganese and Iron Ore bodies in this Bamebari lease occur as scattered, patchy and detached lenses. At present mining operation is carried out for manganese ore only. The quality of Manganese ore varies widely. As can be seen from the Geological Plan (**Plate-V**), Manganese and iron ore bodies occur mostly in forest areas. The high grade Manganese ore will be supplied to the Company's Ferro Alloys Plant at Joda and medium as well as low grade ore will be supplied to our conversion agents and other Ferro Alloys Producers. Iron Ore will be supplied to steel plants of the Company. The lease has been obtained for both manganese and iron ore for primarily supplying to Company's Plants.

This mine is one of the major sources of supply of Manganese Ore for use in our Ferro Manganese Plant at Joda and there is a proposal for expansion of this Plant for increased production. We are also producing other value added Ferro Alloy products by having conversion arrangements with other plants. Within the lease area of 464.000 ha, the forest land constitutes 448.395 ha (170.157 RF + 62.844 ha KF + 149.268 ha DLC forest land as per DLC report+ 66.126 ha of non-forest land recorded as forest in Government records as on 25.10.1980) and 15.605 ha of non-forest land. The MoEF, Govt of India under Stage-II Clearance granted approval for diversion of 145.329 ha forest area (including 85.029 ha. Broken up prior to 1980) & an area of 3.097 ha for safety zone involved in approved land, vide letter no. **F.No.8-72/2004-FC dated 25th January'2007**.

As per Stage-I approval of MoEF vide letter No. **8-80/2004-FC dated 26.05.2005** and subsequently, the Company had deposited the following forest dues:

ITEMS	IN RUPEES
1. Cost of compensatory afforestation	23,50,000.00
2. Infrastructural facilities	7,00,000.00
3. Protection of Safety Zone	96,400.00
4. Afforestation over 1.5 times of Safety Zone	1,75,000.00
5. NPV (Including Sabik Forest)	31,57,80,000.00
6. Wild life protection Plan	1,99,52,000.00
7. Site Specific W.L Conservation Plan	4,69,81,000.00
Grand Total:	386034400.00

Company has subsequently, submitted a proposal for diversion of 209.419 ha of forest land and it was returned for online submission for the entire forest land. (**State SI No. 431/10 dt 27.10.2010**).

As such the present diversion proposal is being filed for 303.066 ha i.e 236.940 ha of balance forest land and 66.126 ha of Non-forest land recorded as forest in government records as on 25.10.1980.

The Collector & District Magistrate, Keonjhar vide letter No. 2181/Rev dated 26.09.2015 allotted an area measuring 209.419 ha of Govt. Non-forest land in lieu of the proposal for diversion of Hal/Balance Forest land and the Collector & District Magistrate, Dhenkanal vide letter No. No.II-53/16/1185 /dated 20.07.2016 allotted an area measuring 66.126 ha against the non-forest land termed as forest as on 25.10.1980 for raising Compensatory Afforestation, in total an area of 275.545 ha has been allotted as



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Compensatory Afforestation Land in lieu of the present Forest Diversion Proposal of 303.066 ha excluding safety Zone of 27.862 ha.

Meanwhile, the Tahasildar, Telkoi vide letter No. 1150/ dated 21.06.2019 intimated that an area measuring 48.4194 ha has been allotted to villagers from the already allotted CA Land of 209.419 ha for the lease, Bamebari Iron & Mn. Mines under Telkoi Tahasil and advised TSL to identify fresh non-forest land measuring 49.00 ha of Government Non-Forest land elsewhere within the Keonjhar District. Pursuant to the same TSL vide letter no. BIMM/L&L/558/2019 dated 23.07.2019 requested the Collector & DM, Keonjhar to allot 49.00 ha additional non forest land as per the advice of the Tahasildar, Telkoi.

In furtherance to the same, the Collector & District Magistrate, Keonjhar vide letter No. 1837/Rev/Dt. 24.09.2020 was pleased to allot fresh area measuring 49.00 ha of Government Non-Forest land in Village-Sudanga of Banspal Tahasil for raising Compensatory Afforestation.

Regional Geology:

The area has been prospected by Geology Department of Steel Company in original and subsequent renewed terms of the lease since the year 1933 through Geological mappings, pitting and trenching, core-drilling and exploratory mining to prove the nature, extent and quality of Manganese ores and indications of iron ore available. The Review of Mining Plan for the period 2020-2025 has also been duly approved by IBM vide letter No. vide Ref. No. RMP/A/08-ORI/BHU/2020-21, Dt. 03.08.2020.

The rock formation of the area belongs to the Iron Group of Upper Dharwar Age. In south Singhbhum, Keonjhar and Bonai Districts, Manganese Ore deposits are associated with Shale, Laterite, Chert and Quartzite of Iron Ore Group and distributed within the horse- shaped synclinorium plunging towards NNE and over folded towards south-east.

The position of Iron Ore Group and the rocks associated with it in the stratigraphical column is as follows:

SOUTH OF THE COPPER BELT
SHEAR ZONE

NORTH OF THE COPPER BELT
SHEAR ZONE

End of the Singhbhum Orogenic cycle (c. 850 Ma)

Newer Dolerite (c.1600-950 Ma)

Soda Granite, Granophyre,
Chakradharpur Granite gneiss,

Kuilapal granite

Mayurbhanj Granite (c.2000-2100 Ma)

Gabbro-Anorthosite, Ultramafic intrusions

Kolhan Group

(C.2100 Ma)

~~~~~Unconformity~~~~~

Jagannathpur-Dhanjori- Similipal

Dhanjori group of lava (c.2200Ma)

Quartzite conglomerate

~~~~~Unconformity~~~~~

Chaibasa formation (c.23000 Ma)

Dalbhum formation Singhbhum
Chaibasa formation Group

~~~~~Unconformity~~~~~

Singhbhum granite

(Phase-III.c.3000 Ma)

Iron ore Orogeny



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Iron ore group (c. 3300 Ma)

~~~~~Unconformity~~~~~

Singhbhum Granite

(Phase I&II.c.3300 Ma)

Older metamorphic gneiss (Metamorphic age.c.3300 Ma)

Older metamorphic Tonalite Gneiss (OMTG) (c.3800 Ma)

Older metamorphic Gneiss (Metamorphic age (c 3800 Ma)

(after Sarkar and Saha, 1977, 1983; Basu, Ray,Sarkar and Saha, 1981; Saha, Ray and Sarkar;1986)

Local Geology:

Manganese in this area occurs as lenses & pockets and are associated principally with shale & occasionally with quartzites of Iron Ore Series of Upper Dharwar age. These rocks usually rich in Iron & Manganese, on being acted upon by meteoric waters, have given rise to large and small segregated masses of manganese ore by process of leaching, replacement and concentration in the zone of oxidation.

Different rock types found are

- Soil with floats of Iron & Manganese ore, Laterites & Quartzites
- Laterite & Lateritic murrum, manganiferrous at places
- Iron ore
- Manganese ore
- Cherty & Jaspery Quartzite
- Shale

Reserves: The reserve (only proved and probable) of Manganese Ore within lease hold area as on 01.04.2020 is 1.393 million tonnes.

By geological investigations the mineralized and non-mineralized area has been separated out whose details are given below. :

BREAK UP OF BAMEBARI LEASEHOLD AREA (MINERALISED/NON MINERALISED).

| TYPE OF AREA | DESCRIPTION | FOREST AREA (ha) | NON-FOREST AREA (ha) | TOTAL (ha) |
|----------------------|---|------------------|----------------------|----------------|
| Mineralized Area | Manganese Ore & Iron Ore | 108.362 | 1.718 | 110.080 |
| Non Mineralized Area | Ancillary activities & community purpose land, Safety Zone & Green belt | 340.033 | 13.887 | 353.920 |
| TOTAL | | 448.395 | 15.605 | 464.000 |

MINING:

The Bamebari Iron & Manganese Mines Lease has been obtained for exploitation of both manganese and iron ores. The entire manganese and iron ore reserves as well as the working pits fall in the forest area.

Since the ore occurrence is near to the surface, opencast method of mining will continue. Although the excavation is mechanized with shovel-dumper combination the further processing of manganese ore is done manually due to its soft nature and high variability of grades in insitu lenses/pockets. The occurrence of iron ore is adjacent to the manganese pockets; the mining for iron ore shall be incidental



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to the manganese ore production and hence the method of mining of iron ore shall be same as that of manganese.

To keep the Plants running profitably and to safeguard the direct & indirect employment of 456 and 296 employees, 83200 Mt/ annum of manganese ore has to be supplied from this mine.

It will be necessary to open up and have more number of new production faces in order to meet the production demand. It shall no longer be possible to meet and sustain the entire production from the present major working pits and it will be necessary to exploit the other ore bearing zones.

The table below indicates requirement of fresh forest and Non-forest land for mining and ancillary activities.

| BAMEBARI LEASE | | Future Requirement of Fresh Forest Land (in HA.) | | | | | | | |
|----------------|---|--|--------|--------|---|---|--------------|--------|-------------|
| Sl. No. | Land Use Pattern | RF | KF | DLC | Broken up Non-forest land recorded as Forest as on 25.10.1980(In Ha.) | NF Land Recorded as Forest as on 25.10.1980 | Total Forest | NF | Grand Total |
| 1 | Mining | 79.103 | 10.133 | 38.675 | 2.390 | 7.842 | 138.143 | 1.370 | 139.513 |
| 2 | Storing Mineral / Top Soil | 9.350 | 9.497 | 7.676 | 5.000 | 2.313 | 33.836 | 1.813 | 35.649 |
| 3 | Dumping of Over Burden | 16.740 | 18.668 | 15.963 | 8.554 | 4.730 | 64.655 | 2.322 | 66.977 |
| 4 | Plant, Workshop, Storing Tools & Machineries | 0.000 | 1.231 | 0.840 | 0.319 | 2.540 | 4.930 | 0.651 | 5.581 |
| 5 | Construction of Building Power Station Workshop | 0.000 | 0.000 | 0.000 | 3.242 | 0.000 | 3.242 | 0.000 | 3.242 |
| 6 | Township Housing Colony | 0.000 | 0.000 | 0.000 | 19.465 | 0.000 | 19.465 | 5.057 | 24.522 |
| 7 | Construction of Road Ropeway Rly Line | 2.560 | 0.969 | 0.310 | 3.453 | 1.974 | 9.266 | 0.000 | 9.266 |
| 8 | Magazine | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9 | Safety Zone | 6.535 | 8.283 | 7.310 | 0.476 | 2.161 | 24.765 | 0.560 | 25.325 |
| 10 | Green Belt | 0.000 | 0.000 | 0.000 | 0.000 | 1.667 | 1.667 | 0.000 | 1.667 |
| | Sub-Total | 114.288 | 48.781 | 70.774 | 42.899 | 23.227 | 299.969 | 11.773 | 311.742 |
| 11 | Approved Safety Zone | 1.020 | 0.112 | 1.965 | 0.000 | 0.000 | 3.097 | 0.000 | 3.097 |
| | TOTAL | 115.308 | 48.893 | 72.739 | 42.899 | 23.227 | 303.066 | 11.773 | 314.839 |



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Thus the forest area of 138.143 ha has been proposed for mining which is the minimum requirement, the said area includes virgin forest area of 79.103 ha RF, 10.133 ha of Khesra Forest, 38.675 ha of DLC forest, 7.842 ha of Non-forest land recorded as forest as on 25.10.1980, 2.390 ha of broken up Non-forest land recorded as forest as on 25.10.1980.

DUMPING OVERBURDEN

The manganese ore deposit within the lease area is entirely pocket type for which huge overburden excavation is required. The pit development will be carried out with stripping ratio of 1:2.33 (T: CuM) by which ~41 lakh cum of overburden will be generated. Overburden will be dumped over the non-mineralized area. Concurrent back filling will also be undertaken once the pit is exhausted. Considering this aspect, additional 56.101 ha of forest land is required for disposal of over burden.

Thus the forest area of 64.655 ha has been proposed for dumping of overburden which is the minimum requirement, the said area includes virgin forest area of 16.740 ha in RF, 18.668 ha in KF, 15.963 ha in DLC forest, 4.730 ha of Non-forest land recorded as forest as on 25.10.1980 and 8.554 ha of broken up Non-forest land recorded as forest as on 25.10.1980.

STORING MINERAL/TOP SOIL

The excavated ore (ROM) will be required to be processed by dressing, sorting and screening. Essentially this area besides storing the ore is also used for dressing and sorting the various grades of the excavated mineral (ROM ore) manually. The processed ore is required to be stacked grade wise in a geometrical shape for correct estimation of the production quantity and quality. These stacks are required to be not more than 1m in height and 250 tonnes in quantity for accurate estimation of the quantity & quality for the purpose of payment of correct royalty to the State Government. The analyzed ore is inspected by the State Govt. authorities before the same is permitted to be dispatched / transported. Thus storing of mineral/ore is very much essential and the same has to be located suitably close to the working quarries so as to avoid chances of theft and pilferage. With new working pits to be taken up for mining in future, more areas adjacent to such pits shall therefore be essential.

Thus the forest area of 33.836 ha has been proposed for storing of mineral/ore/Topsoil, the said area includes virgin area of 9.350 ha in RF, 9.497 ha in KF, 7.676 ha in DLC forest, 2.313 ha of Non-forest land recorded as forest as on 25.10.1980, 5.000 ha of broken up Non-forest land recorded as forest as on 25.10.1980.

PLANT, STORING TOOLS & MACHINERY

For excavation of ore and to process the same for crushing, screening loading etc. and to meet the required production target, space for storing tools and machinery are essentially to be located near the mining face. Hence an area of 4.930 ha has been proposed to be used for plants, storing of tools and machinery.

Thus the forest area of 4.930 ha has been proposed for storing of tools and machinery, the said area includes virgin area of 1.231 ha in KF, 0.840 ha in DLC forest, 2.540 ha of Non-forest land recorded as forest as on 25.10.1980, 0.319 ha of broken up Non-forest land recorded as forest as on 25.10.1980.

CONSTRUCTION OF BUILDING / WORKSHOP

As the major portion of Non-forest land has been found to be recorded as forest in government records and as new mining pits are to be developed, the existing diverted area will not suffice the requirement for setting up of new Rest shelter, Pit Offices, Canteen and Repair Shed adjacent to these new pits,



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which be essential. Hence an area of 3.242 ha of broken up non-forest land recorded as forest as on 25.10.1980 has been proposed to be diverted for construction of building.

Thus the forest area of 3.242 ha has been proposed for construction of building, which is broken up Non-forest land recorded as forest as on 25.10.1980.

TOWNSHIP/ HOUSING COLONY

19.465 ha of non-forest land recorded as forest in government record has been broken-up for the purpose of township/ housing colony. Since, it is expected that it will be necessary to set up mineral separation/ beneficiation plants in future to exploit the sub-grade minerals, the township/ housing colony would require to be further expanded to provide accommodation to the employees engaged for operation & maintenance of these new plants.

Thus 19.465 ha has been proposed for Township Housing colony, which is broken up Non-forest land recorded as forest as on 25.10.1980.

CONSTRUCTION OF ROAD, ROPEWAY, CONVEYOR-CORRIDOR AND POWER TRANSMISSION LINE ETC.

Proper haulage roads will have to be laid in the mining area as well as in other infra-structural areas for free and easy movement of heavy earth moving and other mining equipment, hence an area of 9.266 ha has been proposed to be utilized for the aforesaid purpose.

Thus 9.266 ha of land has been proposed for construction of road etc., which is the minimum requirement, the said area includes virgin forest area of 2.560 ha in RF, 0.969 ha in KF, 0.310 ha in DLC forest, 1.974 ha of Non-forest land recorded as forest as on 25.10.1980 and 3.453ha broken up Non-forest land recorded as forest as on 25.10.1980.

QUALITY CONTROL:

On the basis of information obtained from the Exploratory drill holes it has been established that quality of Manganese ore varies widely in respect of Manganese, Iron, Silica, Allumina and Phos. content. In order to supply required quality and quantity of ore to FAP, Joda whose requirement is around 5,00,000 MT of high grade ore per annum with an average Mn.:Fe ratio maintained of 5.3:1. The Company with its on-going expansion of its Steel making capacities envisages enhancing the Ferro Manganese production capacity at its exiting Ferro Alloys Plant at Joda from 0.0504 MTPA to 0.060 MTPA, installing new silico manganese plant of 0.060 MTPA and one sinter plant of 0.050 MTPA within the existing plant at Joda. The low grade and medium grade manganese ore and the fines shall be utilized in SiMn making. The company will be required to operate more number of pits and new mining faces in the lease-holds including this lease. The recovery of Ferro-manganese grades ores in the ROM in this belt is low requiring total excavation at high rate. Iron ore occurring in this lease if found suitable for Sponge Iron making, will be produced and supplied to Tata Sponge Iron Plant. The iron ore not conforming to sponge grades will be supplied to Steel Works, for production of Steel and other industries.

In this proposal total 303.066 ha of forest land including 66.126 ha of Non-Forest land recorded as forest in the Government Records as on 25.10.1980 has been proposed for diversion.

FOR TATA STEEL LTD.

By their Constituted Attorney

Jayashree Mishra

(SADYAGACHY MISHRA)

**Head Mine Planning
TATA STEEL LTD.**



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LAND USE PATTERN OF ALREADY APPROVED AREA, APPLIED FOR DIVERSION & NOW FUTURE REQUIREMENT OF FOREST LAND (AREA IN HECTS.) TILL END OF LIFE OF MINE (Ref. Plate - IV)

| Sl. No. | Purpose | Forest Area already Approved (in HA.) and Broken-up Non-forest land recorded as Forest as on 25.10.1980. | | | | | | | | | | Future Requirement of Fresh Forest Land (in HA.) | | | | | Grand Total |
|---------|---|--|--------|--------|---------|---|-----------------------------------|---------|---------|--------|--------|--|--------------|--|---------|---------|-------------|
| | | RF | KF | DLC | Total | Broken up Non-forest land recorded as Forest as on 25.10.1980(In Ha.) | Non-forest land utilized (in Ha.) | Total | RF | KF | DLC | Future Requirement of Non-forest land recorded as Forest as on 25.10.1980 (In Ha.) | Total Forest | Future Requirement of Non-forest land (In Ha.) | Total | | |
| 1 | Mining | 38.442 | 8.104 | 40.040 | 86.586 | 2.390 | 0.705 | 89.681 | 79.103 | 10.133 | 38.675 | 7.842 | 135.753 | 1.370 | 137.123 | 226.804 | |
| 2 | Storing Mineral / Top soil | 2.200 | 1.800 | 3.297 | 7.297 | 5.000 | 0.000 | 12.297 | 9.350 | 9.497 | 7.676 | 2.313 | 28.836 | 1.813 | 30.649 | 42.946 | |
| 3 | Dumping of Over Burden | 10.637 | 2.827 | 25.222 | 38.686 | 8.554 | 0.137 | 47.377 | 16.740 | 18.668 | 15.963 | 4.730 | 56.101 | 2.322 | 58.423 | 105.800 | |
| 4 | Plant, Workshop, Storing Tools & Machineries | 0.480 | 0.000 | 0.000 | 0.480 | 0.319 | 0.421 | 1.220 | 0.000 | 1.231 | 0.840 | 2.540 | 4.611 | 0.651 | 5.262 | 6.482 | |
| 5 | Construction of Building Power Station Workshop | 0.350 | 0.000 | 0.190 | 0.540 | 3.242 | 0.352 | 4.134 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 4.134 | |
| 6 | Township Housing Colony | 0.000 | 0.000 | 3.100 | 3.100 | 19.465 | 1.246 | 23.811 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 5.057 | 5.057 | 28.868 | |
| 7 | Construction of Road Ropeway Rly Line | 2.740 | 1.220 | 4.680 | 8.640 | 3.453 | 0.117 | 12.210 | 2.560 | 0.969 | 0.310 | 1.974 | 5.813 | 0.000 | 5.813 | 18.023 | |
| 8 | Magazine | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| | SUB TOTAL | 54.849 | 13.951 | 76.529 | 145.329 | 42.423 | 2.978 | 190.730 | 107.753 | 40.498 | 63.464 | 19.399 | 231.114 | 11.213 | 242.327 | 433.057 | |
| 9 | Safety Zone | 1.020 | 0.112 | 1.965 | 3.097 | 0.476 | 0.854 | 4.427 | 6.535 | 8.283 | 7.310 | 2.161 | 24.289 | 0.560 | 24.849 | 29.276 | |
| 10 | Green Belt | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.667 | 1.667 | 0.000 | 1.667 | 1.667 | |
| | TOTAL | 55.869 | 14.063 | 78.494 | 148.426 | 42.899 | 3.832 | 195.157 | 114.288 | 48.781 | 70.774 | 1.667 | 268.843 | 11.773 | 268.843 | 464.000 | |

By their Constituted Attorney

Sabyasachi Mishra
(SABYASACHY MISHRA)

Bamebari Iron & Manganese Mine, Joda



Proposal for Diversion of Forest Land over 303.066 ha in respect of Bamebari Iron & Manganese Mines Lease of Tata Steel Limited in Villages Palasa (Ka), Kundaposi, Namira, Jadibahal, Jajanga, Khandbondh & Boneikela under Barbil Tahasil in the Keonjhar district of Odisha.

Annexure- I(A)

ABSTRACT OF LAND USE PATTERN OF BAMEBARI LEASE (AREA IN HECTS.)

| Sl. No. | Land Use Pattern | RF | KF | DLC | Broken up Non-forest land recorded as Forest as on 25.10.1980(In Ha.) | NF Land Recorded as Forest as on 25.10.1980 | Total Forest | NF | Total |
|---------|---|---------|--------|--------|---|---|--------------|--------|---------|
| 1 | Mining | 79.103 | 10.133 | 38.675 | 2.390 | 7.842 | 138.143 | 1.370 | 139.513 |
| 2 | Storing Mineral / Top Soil | 9.350 | 9.497 | 7.676 | 5.000 | 2.313 | 33.836 | 1.813 | 35.649 |
| 3 | Dumping of Over Burden | 16.740 | 18.668 | 15.963 | 8.554 | 4.730 | 64.655 | 2.322 | 66.977 |
| 4 | Storing Tools & Machineries | 0.000 | 1.231 | 0.840 | 0.319 | 2.540 | 4.930 | 0.651 | 5.581 |
| 5 | Construction of Building Power Station Workshop | 0.000 | 0.000 | 0.000 | 3.242 | 0.000 | 3.242 | 0.000 | 3.242 |
| 6 | Township Housing Colony | 0.000 | 0.000 | 0.000 | 19.465 | 0.000 | 19.465 | 5.057 | 24.522 |
| 7 | Construction of Road Ropeway Rly Line | 2.560 | 0.969 | 0.310 | 3.453 | 1.974 | 9.266 | 0.000 | 9.266 |
| 8 | Magazine | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9 | Safety Zone | 6.535 | 8.283 | 7.310 | 0.476 | 2.161 | 24.765 | 0.560 | 25.325 |
| 10 | Green Belt | 0.000 | 0.000 | 0.000 | 0.000 | 1.667 | 1.667 | 0.000 | 1.667 |
| | Sub-Total | 114.288 | 48.781 | 70.774 | 42.899 | 23.227 | 299.969 | 11.773 | 311.742 |
| 11 | Approved Safety Zone | 1.020 | 0.112 | 1.965 | 0.000 | 0.000 | 3.097 | 0.000 | 3.097 |
| | TOTAL | 115.308 | 48.893 | 72.739 | 42.899 | 23.227 | 303.066 | 11.773 | 314.839 |

FOR TATA STEEL LTD.

By their Constituted Attorney

Sabyasachi Mishra

(SABYASACHI MISHRA)

Head Mine Planning

TATA STEEL LTD.