



Letter No. 15122/OMC/F&E/2022
15th September, 2022

To

**The Divisional Forest Officer
Keonjhar Division**

Sub: Proposal for non-forestry use of 194.683 ha of forest land in favour of M/s Odisha Mining Corporation (OMC) involved in total mining lease area of 358.258 ha of Guali Opencast Iron Ore Mines located in District Keonjhar (Odisha) – reg.

Ref.: (i) No.8-96/1996-FC (PT.-I) dt 03.06.2022 by MoEF & CC, Govt. of India.
(ii) Letter No.4607/Mining dt 20.06.2022 by DFO, Keonjhar Division.

Sir,

The point wise compliance to the observations raised by MoEF & CC, Govt. of India vide letter under reference (i) and instruction by DFO, Keonjhar to comply the observation vide letter under reference (ii) pertaining to diversion of 194.683 ha of forest land in respect of Guali Iron Ore Mines of OMC Ltd is given as under for kind perusal and scrutiny:

Observation No. i: *27 ha of non-forest land out of 194.683 ha identified for CA falls under MDF category. Detail of degraded forest land identified for raising afforestation in lieu of 27 MDF non-forest CA land has not been submitted along with the proposal. The same needs to be submitted along with complete detail of supporting attributes such as afforestation scheme, suitability certificate, KML files, etc.*

In compliance, it is submitted that the compensatory afforestation scheme approved by CCF (Nodal) covers 167.183 ha under block plantation mode @ 1600 plants/ha with soil and moisture conservation (SMC) activities over entire non-forest land of 194.683 ha including 27.0 ha of MDF category. In the CA scheme, 267493 nos of plants (167.183 ha X 1600) has been approved as against the requirement of 194683 nos (194.683 ha X 1000 seedlings as stipulated by MoEF & CC). This fulfils the purpose of Compensatory Afforestation to compensate the loss of “land by land” and loss of “tree by tree” as per the guidelines by MoEF & CC vide F.No.11-423/2011-FC dt 08.11.2017 (**Annexure-I**). Therefore, no extra plantation in degraded forest land has been proposed.

Observation No. ii: *Detail of degraded forest identified in lieu of 1.5 times the area of safety zone of 6.469 ha of land of the mining lease for raising afforestation has not been submitted along with the proposal. Same needs to be submitted along with complete detail of supporting attributes such as afforestation scheme, suitability certificate, KML files, etc.*

In compliance, it is submitted that earlier MoEF had conveyed in-principle approval over 42.417 ha of already broken up forest land vide letter No.8-96/96-FC dt 25.09.2003 stipulated with one of the condition to undertake afforestation over 1.5 times the safety zone in degraded forest elsewhere. In this case, the safety zone area is 16.16 ha and therefore 24.24 ha i.e. 1.5 times the SZ in Atei RF under Patna Range of Keonjhar district has been selected for raising afforestation. DFO, Keonjhar while formulating the scheme has indicated at Sl.No.3 of the CA Scheme

Odisha Mining Corporation Ltd.

(A Gold Category State PSU)

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CIN : U13100OR1956SGC000313

approved by CCF (N) to take up Block Plantation over 24.24 ha in blanks with 1600 plants/ha at 2.5m X 2.5m spacing which confirms that the land is suitable for plantation. Therefore, a separate suitability certificate has not been enclosed in this case. The authenticated plan showing 24.24 ha in Atei RF has been attached to the CA scheme duly approved by CCF (N) is enclosed as **Annexure-II** for reference. The KML file of 24.24 ha is given in a CD, enclosed herewith for needful.

Observation No. iii: *Elephant Habitat-2 is reported in the area proposed for diversion, therefore, comments of PCCF (Wildlife) and CWLW, Odisha on the likely impacts of the project on the elephant habitat and other schedule species reported in the area may be obtained by the State and may be informed to the Ministry.*

In compliance, it is submitted that out of 332.100 ha of forest land included within the ML, 30.657 ha is of RF category and balance 301.443 ha is Revenue forest land. Therefore, a Site Specific Wildlife Conservation Plan (SSWLCP) has been prepared including impacts of the project on the flora and fauna and got it approved by PCCF (WL) & CWLW, Odisha vide Memo No.1WL-C-FC-385/08-321 dt 17.01.2009 with a total financial outlay of Rs 277.00 lakhs towards activities to be implemented in core and buffer zone within a period of ten years. The total cost of Rs 277.00 lakh towards implementation of various activities in core as well as buffer zone has been deposited. The recommendations prescribed in the approved plan have been implemented by DFO, Keonjhar in buffer zone by utilizing the funds deposited by the lessee. However, DFO, Keonjhar may add a note on impact of activities undertaken so far on the elephant habitat and other schedule species reported in the area.

The copy of the approved SSWLCP and the copy of the various activities undertaken vis-à-vis the amount spent are enclosed as **Annexure-III** and **Annexure-IV** respectively.

Observation No. iv: *A Nallah named Topadihi flows inside the ML area and it has been proposed to be diverted. Comments of the Water Resource Department of the State on the efficacy of proposed diversion of nallah need to be informed by the State.*

In compliance, it is submitted that OMC vide letter No.9647/OMC/F&E/2022 dt 18.06.2022 requested the Engineer in Chief, Department of Water Resources, Bhubaneswar to give his views in terms of the efficacy of the proposed Nallah diversion. The Department of Water Resources Govt. of Odisha vide letter No.21122/WR dt 08.08.2022 has referred the letter No.WG-OMC-15/22-19995/WE dt 05.08.2022 by the Engineer-in-Chief, WR which in turn states that there will be no issue on discharge of the nallah due to the diversion proposal. The copy of the letters is enclosed herewith as **Annexure-V series**.

Observation No. v: *Cost benefit Analysis of the project has been estimated to be 1:1786.67 which appears to be exorbitantly high. Total cost to be incurred on the project has been estimated to be Rs. 46.46 crores while benefits estimated to the tune of Rs. 83,011.84 crores. The same needs to be revisited and estimated using appropriate techno-economic tools for estimation of all parameters and their discounting to arrive at same present values of cost and future benefits.*

In compliance, it is submitted that the benefits by OMC and the cost estimate by DFO, Keonjhar as per the Guideline by MoEF & CC vide letter dt. 28.03.2019 has been revised and the CB ratio comes to 1:1130. The copy of the benefits by OMC and cost by DFO is enclosed as **Annexure-VI** and **Annexure-VI A**.

Observation No. vi: *Proposal involves 136 project affected families wherein 99 families have been proposed to be displaced. It is proposed to rehabilitate the displaced families in re-settlement colonies. Detail of R&R Plan, as approved by the State, has not been submitted along with the proposal.*

In compliance, it is submitted that the letter No.614/SM dt 27.01.2022 by the Under Secretary to Govt. of Odisha, Steel & Mines Department explains adequately regarding use of Private land for mining operation which is covered under the provisions of Rule 52 & Rule 53 of M C Rules 2016. The content of the above Rules clearly transpires that acquisition of private lands existing within the mining lease area is not mandatorily required for undertaking the mining operation. Department of Steel & Mines has also advised that OMC Ltd., may please proceed to undertake the mining operation in the private lands existing in Guali Mining Lease on the strength of the vested surface right and in due adherence to the applicable provision of laws.

However, OMC being a State Govt. PSU shall abide by the R&R Plan, 2016 approved by the State Govt. The copy of the letter by S & M Dept. and approved R&R Plan by the State Govt. is submitted here with as **Annexure-VII** and **Annexure -VIII** respectively.

Observation No. vii: *Status of transfer of approvals granted under the Forest (Conservation) Act, 1980 from M/s S. P. Rao to M/s OMC Ltd, in accordance with the relevant guidelines issued by the Ministry, has not been intimated by the State. Detail of the same needs to be shared by the State.*

In compliance, it is submitted that OMC has submitted the compliance and requested DFO, Keonjhar vide letter no. 8564/OMC/F&E/2022 dt. 25.05.2022 for transfer of FC (Stage-II) over 42.417 ha and 95.00 ha pertaining to Guali Iron Ore Mines in favour of OMC Ltd. DFO, Keonjhar has recommended the compliance to CCF (N) through RCCF, Rourkela vide letter No.5107/6F-Mining-16/2021 dt 05.07.2022. Copy of the correspondence in this regard is enclosed as **Annexure-IX** series. The proposal is under scrutiny by State Forest Department.

Observation No. viii: *Detail of NPV paid by the previous lessee i.e. M/s R. P. Sao in lieu of approvals accorded in the past may be intimated by the State.*

In compliance, it is submitted that an amount of Rs. 19, 57, 25,410/- has been deposited by previous lessee i.e. M/s R.P.Sao in three phases. The payment details are indicated in the CAMPA format and enclosed as **Annexure-X**.

Observation No. ix: *Examination of Mining Plan revealed the following:*

Observation No. ix. a. *As per details of the area involved in the Mining Plan, forest area has been indicated as 229.524 ha while the proposal submitted online indicated the area as 332.10 ha. Similarly, land use provided in the Mining Plan for conceptual period at page 92 is corresponding to area of 339.709 ha while the total area of lease is 358.258 ha. Discrepancy in the area needs to be rectified by the State.*

In compliance, it is submitted that the forest area in the mining plan approved by IBM dt 19.03.2021 has been mentioned as 229.524 ha basing on the land schedule attached to the mining lease deed executed on dt 12.01.2021. This land schedule is based on the HAL settlement RoR. Tahasildar, Barbil, on request made by OMC, issued a certified copy of the land schedule on dt 22.03.2021 (Annexure-VII of the DP at page no.187 to page no.207a-207j) wherein the total forest land included within Guali ML comes to 332.100 ha. Therefore, OMC has uploaded 332.100 ha of total forest land in PARIVESH portal during submission of the application for diversion of forest

land. The copy of the abstract of the land schedule as per HAL & SABIK RoR is enclosed as **Annexure-XI**. The total forest land of 332.10 ha mentioned in the online proposal may be accepted as correct.

In reply to the second part of the observation, it is submitted that the area for land use provided in Chapter 2.0 (f) of the Mining Plan under “Land Use Planning” during conceptual stage has been estimated excluding 17.786 ha as Other un-utilized area and 0.763 ha retained for Plantation. Thus, the total area comes to 358.258 ha (339.709 + 17.786 + 0.763) equal to the total ML area. Hence, there seems no discrepancy. The copy of the extract of the Mining Plan is enclosed as **Annexure-XII**.

Observation No. ix. b. *Further, Mining lease has been granted for a period of 10 years while the Mining Plan has been submitted only for 5 years. State Government may intimate the detail of Mining Plan, if any prepared for the entire lease period addressing the excavation of the entire mineable reserve in the lease.*

In compliance, it is submitted that the ML area contains 160.136 million tons of iron ore reserve and by the end of 5th year i.e. 2025 the total production will be 96.19 million tons. Therefore, the remaining reserve of 63.946 million tons (160.136 - 96.19) shall run the mines for another 3 years. By the end of 8th year, the mineral gets exhausted i.e. much before the lease period is expired. This has been approved by IBM vide letter no. MP/A/38-ORI/BHU/ 2020-21/2916 dt.19.03.2021 along with the planning for disposal of mineral rejects, Waste disposal and use of 212.27 ha for mining by the end of Conceptual period. The copy of the extract of the Mining Plan is enclosed as **Annexure-XIII**.

At least 180 days before the expiry of current mining plan, OMC shall submit a mining scheme before IBM for the remaining period of the ML as per clause no. 17 (2) of the MCR, 2016 for approval of Mining Scheme.

Observation No. ix. c. *Figures of different land uses in the mining lease as provided in the proposal and in Progressive Mine Closure Plan cannot be tallied for want of consolidated detail of land use in the proposal. Reconciled detail of land use in proposed in the forest and non-forest land may therefore be provided by the State.*

In compliance, it is submitted that the figures of different land uses provided in the proposal is mentioned for 194.683 ha of forest land and 19.572 ha of non-forest land which is a part of the entire ML area of 358.258 ha mentioned in the Progressive Mine Closure Plan. However, a comparative statement of land use approved and proposed with that of the land use given in Progressive Mine closure Plan is given at **Annexure-XIV** for reference.

Observation No. ix. d. *As per detail furnished in the Mining Plan, in the ongoing project, area earmarked for dumping is 6.959 ha while an area of 0.093 ha is earmarked for storage of top soil. Area for dumping in the extant project has been increased to 56.90 including additional area of 49.051 ha, a justification for abrupt increase in the area earmarked for dumping may be furnished by the State.*

In compliance, it is submitted that in the current proposal, Revenue forest land has been proposed to be utilized for dumping of overburden within the ML. Dumping of overburden outside the ML is not permissible under MMDR Act and the Rules made there under. As per the Mining Plan approved by IBM, the disposal of waste has been earmarked within the ML on the non-mineralized areas.

The area utilized over 42.417 ha and 95.0 ha within Guali Mines for mining and ancillary purposes has so far generated very less overburden and hence only 6.959 ha has been used for dumping of overburden. Mining till date continued at depth without any lateral expansion. On getting Stage-II Forest Clearance over 194.683 ha of virgin forest land, mining activity will be carried out in virgin forest land. It has been estimated that 9.5 Mm³ of wastes will be generated from Guali Iron Ore Mines till conceptual period out of which 2.85 Mm³ will be utilized for road formation, maintenance and bund formation and remaining 6.65 Mm³ waste will be dumped at proposed dump location. For safe disposal of 6.65 Mm³ of waste, there is a requirement of additional 49.051 ha of forest land for waste dumping. This has been approved by IBM.

Moreover, the current rated production of 5.48 MTPA of iron ore has been planned to enhance up to 30.0 MTPA (almost six fold increase) and hence the sudden increase in the area for dumping is justified. The copy of the relevant pages of approved mining plan is enclosed as **Annexure-XV** for ready reference.

Observation No. x: *The State Government may also submit their considered opinion or justification on the following:*

Observation No. x. a. *The State Government may comment on observation of DFO contained in part-II of Form-A reporting apparent violation of Forest (Conservation) Act, 1980 by using Sabik forest land of 38 ha for dumping without prior approval under the FC Act, 1980.*

In compliance, it is submitted that the Non-forest land as per HAL settlement RoR used for dumping by the previous lessee i.e. M/s R.P.Sao is found subsequently to be forest land as per SABIK record has been considered as violation of FC Act, 1980 by DFO, Keonjhar in his site inspection report. The said area has been included within 194.683 ha proposed for diversion.

Observation No. x. b. *The State Government may comment on observation of DFO contained in part-II of Form-A reporting apparent violation of Forest (Conservation) Act, 1980 by using Sabik forest land of 38 ha for dumping without prior approval under the FC Act, 1980.*

In compliance, it is submitted that the reply to above observation is same as given against Point No.x.a. above.

Observation No. x. c. *M/s Deepak Steel has purchased and established a Steel Plant over 8.0 ha of Sabik land within the ML area. Therefore, comments are desired on whether sale purchase within ML area after lease execution is permissible, impact of such activities on lease sanctity and reasons for not including the same into the detail of project components submitted along with the proposal.*

In compliance, it is submitted that M/s Deepak Steel & Power has set up a Steel Plant inside the lease hold area of Sri R.P.Sao, during the non-working period (1997 to 2002) of the mines, in the purchased tenanted land as well as encroached Govt. land. Sale and purchase of land within ML area after lease execution is permissible for establishment of infrastructure. In order to commence mining and allied operation, surface right permission over 286.089 ha by the Collector, Keonjhar has been granted basing on the application made by the ex-lessee. Prior to OMC taking over the lease, M/s Deepak Steel had purchased and established a Steel Plant over 8.0 ha of non-forest land which was subsequently found to be located in Sabik kissam forest land of the ML. The plant is not in operation since 2006 and the structures standing on it is in demolition stage. It will not have any impact on the lease administration. OMC is in the process of exploring this patch by core

drilling and if found mineralized shall put under mining land use. OMC has no plan to operate the plant.

Observation No. x d. *Whether the lease executed between Collector, Keonjhar and M/s OMC on 12.01.2021, includes forest land of 194.683 ha and if so, why execution of lease without the prior approval of the Central Government under the FC Act for 194.683 ha should be treated as a violation of Forest (Conservation) Act, 1980 and relevant orders of Hon'ble Supreme Court.*

In compliance, it is submitted that ML executed between Collector, Keonjhar and M/s OMC on 12.01.2021, includes forest land of 194.683 ha. Regarding execution of lease without prior approval of the Central Govt., the clause No.7.3 (vi) of the letter by MoEF & CC dt. 31.03.2020 keeps a provision which is read as under:

“ a. A new lessee of the mining leases expiring under the provisions of sub-section (5) and (6) of Section 8A of Mines and Minerals (Development and Regulation) Amendment Act,2015, shall be deemed to have acquired all valid rights, approvals, clearances, licenses and like vested with the previous lessee for a period of two years..... ”

Subsequently, as per MMDR Amendment Act, 2021 dt 28.03.2021 the following is reproduced for clarity:

“8B. (1) Notwithstanding anything contained in this Act or any other law for the time being in force, all valid rights, approvals, clearances, licenses and the like granted to a lessee in respect of a mine (other than those granted under the provisions of the Atomic Energy Act, 1962 and the rules made there under) shall continue to be valid even after expiry or termination of lease and such rights, approvals, clearances, licenses and the like shall be transferred to, and vested; subject to the conditions provided under such laws; in the successful bidder of the mining lease selected through auction under this Act:

Provided that where on the expiry of such lease period, mining lease has not been executed pursuant to an auction under provisions of sub-section (4) of section 8A, or lease executed pursuant to such auction has been terminated within a period of one year from such auction, the State Government may, with the previous approval of the Central Government, grant lease to a Government company or corporation for a period not exceeding ten years or till selection of new lessee through auction, whichever is earlier and such Government company or corporation shall be deemed to have acquired all valid rights, approvals, clearances, licenses and the like vested with the previous lessee:

Provided further that the provisions of sub-section (1) of section 6 shall not apply where such mining lease is granted to a Government company or corporation under the first proviso:

Provided also that in case of atomic minerals having grade equal to or above the threshold value, all valid rights, approvals, clearances, licenses and the like in respect of expired or terminated mining leases shall be deemed to have been transferred to, and vested in the Government company or corporation that has been subsequently granted the mining lease for the said mine.

(2) Notwithstanding anything contained in any other law for the time being in force, it shall be lawful for the new lessee to continue mining operations on the land till expiry or termination of mining lease granted to it, in which mining operations were being carried out by the previous lessee.”

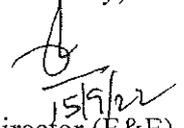
Ministry of Mines vide letter no.4/1/2020-M.VI dt. 05.01.2021 reserved Jilling-Langalota Iron Ore Mines and Guali Iron Ore Mines. Accordingly, Mining Lease was granted and executed in favour of OMC to produce iron ore as per the raw material requirement of the

industries. The area of operation is strictly confined within approved forest area of 137.417 ha, excluding 194.683 ha of forest area to be utilized after grant of stage-II Forest clearance.

It is therefore requested to kindly recommend the above compliance to higher ups for onward recommendation to MoEF & CC, Govt. of India for consideration by FAC for grant of stage-I Forest Clearance.

Encls. as above.

Yours faithfully,



Executive Director (F&E)

F.No. 11-423/2011 - FC
 Government of India
 Ministry of Environment, Forest and Climate Change
 (Forest Conservation Division)

Indira Paryavaran Bhawan,
 Jor Bagh Road, Aliganj,
 New Delhi-110003.
 Dated: 8th November, 2017

To

The Principal Secretary (Forests)
 All States/UT Governments.

Sub: Identification and suitability of Non-forest land for Compensatory Afforestation under Forest Conservation Act 1980 - regarding Identification of Land Bank for Compensatory Afforestation (CA)

Sir,

I am directed to invite your kind attention to the chapter III of guidelines issued in 2003 by MoEF to implement the Forest Conservation Act 1980 which deals with compensatory afforestation. The para 3.2 of the said guidelines provides for identification of land for compensatory afforestation.

In 3.2 (i) it has been clarified that Compensatory afforestation shall be done over equivalent area of **non-forest land (NFL)**.

As an explanation to 3.2(i) it has been mentioned that:

As a matter of pragmatism, the revenue lands/zudpi jungle/ Chhote/ Bade jhar ka jungle/ jungle-jhari land/civil - soyam lands and all other such categories of land, on which the provisions of Forest (Conservation) Act, 1980 are applicable, shall be considered for the purpose of compensatory afforestation provided that lands on which compensatory afforestation is proposed shall be notified as RF under the Indian Forest Act, 1927.

The application of the GIS based Decision support system (DSS) by the ministry suggests that in many cases a substantial portion of the land identified for compensatory afforestation already contain vegetation of varying density. Creation of compensatory afforestation on such land will not fully compensate the loss of trees, as there will not be enough space for the requisite number of plants to be planted. Outright rejection of such NFL for compensatory afforestation is not desirable. However, once such NFL are selected for compensatory afforestation, these NFL are required to be transferred to State Forest Department and brought under the regular management control of the SFD.

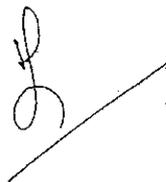
The issue of identification of suitable land for Compensatory afforestation and land bank consisting of both Degraded Forest Land (DFL) and Non Forest Land (NFL) to be made available to user agencies for compensatory afforestation has been considered in the Ministry and following guidelines are issued for identification of suitable land for Compensatory Afforestation and creation of Land Bank under Forest Conservation Act 1980:

The following amendment is made in 3.2(i) and **explanation 2** is added as under

- i. The purpose of compensatory afforestation (CA) is to compensate the loss of 'land by land' and loss of 'trees by trees'.
- ii. For compensatory afforestation the number of plants to be planted over compensatory afforestation land shall be at least 1000 plants per hectare of forest land diverted.
- iii. If the requisite number of plants @ 1000/ha can not be planted on the non-forest land identified for taking up CA, then the balance number of the plants will be planted in degraded forest land as per the provisions of working plans. The State Government will intimate to the MOEF&CC the names of the R.F./P.F. in which the balance seedling will be planted. The User Agency will deposit the cost of planting these seedlings.
- iv. If the compensatory afforestation has to be done on degraded forest land (DFL) identified for CA for as provided in para 3.2 (vi), 3.2(vii) and 3.2(ix) then normally, 1000 saplings will be planted per ha of the diverted land. In case 1000 saplings can not be accommodated per ha in the DFL identified for CA, the balance seedlings will be planted in any RF/PF as per prescription of working plan. The State Govt. will intimate names of the RFs/PFs in which the balance seedlings will be planted. The user agency will deposit the cost of plantation of the same.
- v. The compensatory afforestation may also include several activities like soil & moisture conservation, regeneration cleaning, silvicultural activities in addition to plantation as prescribed in the working plan as applicable. Compensatory afforestation schemes under Assisted Natural Regeneration models as applicable to the identified non forest land (NFL) as well as degraded forest land (DFL) may be considered as per the site requirement.
- vi. State Government will formulate compensatory afforestation scheme including activities like soil & moisture conservation, regeneration cleaning, silvicultural activities and shall ensure maintenance of these plantations for a period of seven to ten years as per requirement.
- vii. The non forest land over which compensatory afforestation will be taken up shall be notified as RF/PF and shall remain under the administrative control of State Forest Department. If the DFL over which CA will be taken up is not a notified forest under IFA or State Forest Act the same shall be notified as RF/PF under this act.

In para 3.2 (ix) the following sub para is added after (f) for identification of Land bank for compensatory afforestation

- (g) The States and UTs shall create land bank for Compensatory Afforestation for speedy disposal of the FC proposals under FC Act 1980. The degraded forest land with crown density upto 40% under the administrative control of forest department may be identified using the Satellite imagery and in consultation with Forest Survey of India and will be made available for CA for Central Government projects and Central Public Sector Units (CPSU). The *revenue lands/zudpi jungle/ Chhote/ Bade jhar ka jungle/ jungle-jhari land/civil - soyam lands* and all other such categories of land, on which the provisions of Forest (Conservation) Act, 1980 are applicable and other



waste lands and non-forest lands may also be identified as land bank for the purpose of Compensatory Afforestation. Accordingly, it was decided that to expedite creation of land bank in a systematic manner a Committee under Chairmanship of the Principal Chief Conservator of Forests may be constituted with Chief Wildlife Warden and representatives of revenue department in the State as members of the Committee. The committee may identify the following areas as land bank on priority for inclusion in the land Bank in addition to the blank area and plantation blank referred in para 3.2 (ix)(c) :

- (i) Degraded forest land with crown density upto 40% under the administrative control of forest department
 - (ii) Areas falling in wildlife corridors to improve **connectivity** between habitats.
 - (iii) Areas falling in and around the Protected Areas (PAs), eco-sensitive zone of PAs, forest areas under direct administrative control of the SFDs to ensure **consolidation** of such areas.
 - (iv) Habitat of rare, threatened and endangered species of flora and fauna located in the areas not under direct administrative and management control of the SFD to ensure long term **conservation** of such habitats.
 - (v) Areas falling in **catchment** areas of important rivers, water supply schemes, irrigation projects, hydro-electric projects etc.
- (h) To monitor the progress of creation of land bank for compensatory afforestation, the Ministry will constitute committees under chairmanship of Head of each Regional Office of the Ministry. Among others, representatives of the National Tiger Conservation Authority (NTCA) and the FSI will also be included as member of these committees. These committees will review the progress in creation of land bank for compensatory afforestation in the States/UTs falling under jurisdiction of the Regional Offices and submit a quarterly report to the Ministry.

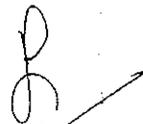
This issues with the approval of competent authority



(Nisheet Saxena)
Assistant Inspector General of Forests (FC)

Copy to:

1. All PCCFs States/UTs
2. All Regional Office, MOEF&CC
3. Nodal Officers (FCA) O/o the PCCFs All States/UT
4. DIGF(FC)/Dir(ROHQ)/All AIGFs(FC), MOEF&CC New Delhi
5. PPS to Secretary, MOEF&CC New Delhi
6. PPS to DGF&SS, MOEF&CC New Delhi
7. PPS to IGF(FC)
8. Guard File



(Nisheet Saxena)
Assistant Inspector General of Forests (FC)

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Scheme for Afforestation over one and half time of Safety Zone area in degraded forest land elsewhere i.e. in Atef RF identified against Guali Iron Ore Mines of M/s. Sri R.P. Sao.

Introduction.

The Government of India, Ministry of Environment & Forests, has issued a principle vide their letter No. 8-96/96-FC dated 25th September 1996. The area of 42,417 hect. of already broken up forest land for renewal or replantation in favour of M/s. Sri R.P. Sao with stipulated condition that the user agency shall bear the cost of afforestation over one and half time safety zone area in degraded forest elsewhere. For this purpose the Safety zone being 16.16 hect., 24,240 hect. of degraded land has been identified in Atef RF to comply the stipulated conditions.

So the present scheme aims at preparation of a site-specific Afforestation scheme for 24,240 hect of degraded forest land in Atef RF in compliance with the stipulations of Government of India, Ministry of Environment & Forests.

Selection of sites/Description of vegetation.

For this purpose the degraded forest land has been identified in Atef Reserve forest in Patna Range of Keonjhar (T) Division. The area is situated close to the village Dumuria (Dumuria) and is closely situated near the Afforestation site raised against Belkumar Iron Miner of OMDCL Ltd. The area is mostly covered with scrub forest and there exists in some places degraded crops of dry deciduous species mainly of Sal and its associates in sapling and pole crops. The total area of 24,240 hect. identified for the purpose is adjoining the penal compensatory site of the above project and is purely a blank area being subjected to periodical encroachments.

Soil & Topography.

The topography of the area is somehow plain and a small hilly portion also exists within the area identified. The soil is mostly calcareous in nature. However at places sandyloam soil of good depth is available, where suitable plantations can be taken up. The soil is at places eroded due to encroachments. Suitable soil conservation measures therefore need to be dovetailed with the afforestation programmes for making it success.

Temperature.

The average temperature varies from 13.5° C minimum in December to 45° C maximum in May.

Rainfall.

The annual rainfall varies from 1200 mm to 1500 mm. The maximum rainfall is received during the rainy season from July to September.

Objective of the Scheme.

The main objective of the present scheme is to take up afforestation in the pure blank areas with upkeeping of available degraded forest crop. It aims at enforcing protection

measures of the plantations by involving people around under the Joint Forest Management. It further seeks to dovetail suitable soil conservation measures with the afforestation work so as to conserve soil and water for enrichment of the eco-system.

Item of works to be taken up.

To achieve the above objectives, the following item of works are mainly prescribed to be taken up.

1. Survey & Demarcation of boundary.

This work shall be taken up by the User Agency before complying the stipulations of State-I clearance. The identified area has to be surveyed by the User Agency and at suitable corner points, RCC pillars of size 1.25 m x 20 cm x 20 cm shall be posted for clear demarcation of the area.

2. Fencing.

To protect the plantation from grazing and other biotic interference, fencing shall be taken up over 2.488 Km. of periphery in the following manner.

- a) 0.588 Km of boundary shall be provided stonewall fencing of 1.2 meter width at base 0.8 meter width at top and 1.25 meter high. At suitable intervals passage for run-off water shall be provided. Voids of the stone-wall shall be filled up with clay soil so that it will act as a binding material for the boulders. The stone wall shall be maintained for 3 years. A model cost estimate for stone-wall fencing has been provided Annexure-1.
- b) A length of 1.900 Km shall be taken up with vegetative fencing. A live-hedge fence with vegetative cuttings of species like Vitex, Duranta, Erythrina, Lantana and even Ipomea in case of non-availability of above species shall be raised by putting the cuttings in the periphery at the onset of monsoon. Supports of poles of ficus, Lantana species shall be given at a distance of 3m, and 2 strands of splitted bamboo be tied to the fence for strength. The fence shall also be maintained for 3 years. A line of Sisal plants at a spacing of 1m, shall be given in the inner side of the live hedge fence, so that it will act as a 2nd fence in the case of damage of live-hedge fence.

3. Planting and post-planting.

Block plantation over 24.240 hect. shall be taken up in blocks with 1600 plants per hect. at a spacing of 2.5m x 2.5m

Choice of species.

As far as possible, indigenous species like Teak, Bamboo, Sal, Gambhar, Babul, Phasi, Neem, Harida, Bahada, Anla, Phasi, Kasi etc be planted in areas subjected to heavily grazing incidences, some mix of Chakenda, Simaruba may be given.

Points of importance.

While taking up plantation, the following vital points shall be taken up for consideration.

- 117
- All cares be taken to raise healthy seedlings of minimum 2' height. 100% care of the required stock be raised. Complete 1 year seedlings shall be used in case of Teak, Bamboo, Anan, Arjun, Phasi, Neem, Harisa, Bahada, Kam, etc. However, in case of Sisoo, Gambhar, Chakunda, etc. 6 month old seedlings can be used.
 - Pitting shall invariably be done during February - April, i.e. before onset of monsoon. In hilly areas, pits shall be dug along the contours.
 - Planting shall be done on the onset of monsoon and should not be delayed.
 - Basal dose of 30 grams of NPK and 5 grams of Aldrin be applied at the time of planting.
 - Casualty replacement, weeding and soil working, application of fertilizer and insecticides shall be taken up as per the provisions in the cost-norm at the proper time.
 - Engaging requisite watchers as per norm who shall also take up tracing, of inspection path and fire line and maintenance of fence as and when required shall provide watch and ward. A watcher shed be constructed at suitable place for proper upkeep of the plantation.
 - All out efforts be taken to keep the plantation free from grazing, fire and other biotic interference.
 - The cost norm for Block plantation is given in Annexure-2.

4. Soil and Conservation Measures.

For effective soil and water conservation measures, check dams (both earth and stone) at upper ridges with vegetative planting and dry rubble in lower slope) gully control measures, staggered contour trenches/bunds and linear contour bunds as will be required in the field shall be taken up in the year of planting.

5. People's participation.

In order to involve the adjoining people in the protection of plantation, meetings are to be conducted in the adjoining villages and efforts be made to constitute VSS who will be assigned with the task of protection and management of the compensatory afforestation as per Government Resolution of 1993. To motivate the people, they shall be provided incentives in shape of different articles for communal use. Health camps shall also be organized in the villages.

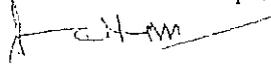
The detailed estimate for the expenditure on this account has been given in Annexure-3.

6. Monitoring and Evaluation.

The scheme shall be executed and monitored by the Divisional Forest Officer, Keonjhar (T) Division from time to time. To facilitate this, the user agency shall bear the cost of infrastructure required and shall provide also the infrastructural facilities as per Annexure-4.

7. Total cost of the Project.

The total cost of the project will be Rs. 7,36,200/- as detailed in Annexure-5. It shall be deposited in favour of Forest Department for execution of the scheme.


 Divisional Forest Officer
 Keonjhar Division



ANNEXURE -1.

ESTIMATE FOR FENCING /STONE WALL

Size of the Stone Wall:	Bottom Width.	1.2 Meters.
	Top width.	0.8 Meters.
	Height.	1.25 Meters.
Cross Section.	1.25 Sqm.	
Volume of Stone wall in 1 Rmt. = 1.25 cum.	=	1.25 cum.
Dry stone masonry in guard wall as per PWD schedule of rate 2000 over 1 cum with collection and conveyance of locally collected boulders.		Rs.112.60
Expenditure for 1 Rmt.	= 1.25 x 112.60	Rs. 140.75
Expenditure for 1 km.	= 140.75 x 1000	Rs.1,40,750
Provision of trespassing gates. (@ 2 gates/KM Rs.10,000 each)		Rs. 20,000
Total	Rs.1,40,750 + Rs.20,000	Rs.1,60,750

TOTAL KILOMETER TO BE COVERED BY FENCING.

Sl.No.	Description.	Stonewall fencing.	Vegetative fencing.	Total.
a)	Total km to be covered by fencing around the degraded area selected in Atef RF (in Patna Range)	0.588 Km.	1.900 Km.	2.488 Km.

COST OF STONE WALL FENCING. Rs.1,60,750 x 0.588 Km =Rs.94,521

COST OF VEGETATIVE FENCING. Rs:48,300 x 1.900 Km. =Rs.91,770

TOTAL COST OF FENCING. Rs.1,86,291/-

[Signature]
 Joint Commissioner of Forests
 Kanchbar Division

[Signature]
 Dy. Commr.

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Annexure - 2

**COST ESTIMATE FOR BLOCK PLANTATION OF 1600 SEEDLINGS/HECT
AT 2.5M x 2.5M SPACING.**

1	Name of the Plantation.	Block Plantation.
2	No. of seedlings to be planted.	1600 Nos. per hect.
3	Spacing to be adopted.	2.5m x 2.5m
4	Size of pits.	30cm x 30cm x 30cm
5	Wage rate.	Rs.52.50 per manday.
6	Species to be planted.	Teak, Bamboo, Asan, Arjun, Neem, Mango
7	The user agency will pay the enhanced wage rate as and when required.	

A. NURSERY COST FOR 1600 SEEDLINGS.

Sl. No.	Name of activity.	Period of activity	Mandays	Labour rate @ Rs.52.50	Material cost	Total
1	Cost of seeds including transport.	Mar-Apr	4	-	100.00	100.00
2	Preparation of raised nursery beds (10'x4') by getting good earth and mixing cowdung manure.	April	3	157.50	-	157.50
3	Treatment of seeds (alternate soaking and drying) and dibbling of treated seeds on beds.	April-May	3	157.50	-	157.50
4	Cost of watering the beds.	May-June	26	1365.00	-	1365.00
5	Weeding of beds.	Aug-Sept.	4	210.00	-	210.00
6	Contingencies.		3	157.50	-	157.50
7	Fencing of temporary nursery site.	Feb-Mar.	1.5	78.75	-	78.75
8	Cost of fencing materials.		-	-	75.00	75.00
9	Cost of polythene bags (9"x5"x125G)		-	-	350.00	350.00
10	Cost of soil and CDM		-	-	550.00	550.00
11	Cost of chemical fertilizer. (8 Kg @ 25)		-	-	200.00	200.00
12	Cost of insecticides.		-	-	50.00	50.00
13	Preparation of soil mixture (soil, sand and CDM 1:1:1)	Mar-April	2	105.00	-	105.00
14	Filling of polythene bags and setting into beds.	Mar-April	5	262.50	-	262.50
15	Preparation of stumps.	Mar-April	5	262.50	-	262.50
16	Transportation of stumps to temp. nursery.	Mar-April	2	105.00	-	105.00
17	Transplanting the stumps to polythene bags.	= do -	3	157.50	-	157.50
18	Watering the polytops.	Mar/Apr-June	12	630.00	-	630.00
19	Weeding, grading and sorting of polytops.	April-May	4	210.00	-	210.00
20	Application of insecticides/chemical manure in nursery.	April-May	1	52.50	-	52.50
21	Contingencies.		3	157.50	-	157.50
TOTAL.			77.5	4868.75	1325.00	5391.75

Item of activity
Nursery raising
(1600 seedlings)

*Labour component
mandays | Cost*
39 2047.50

Material component
1650.00

Total expenditure
i.e for 1600 seedlings
3697.50

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B. ADVANCE WORK (PRE-PLANTING OPERATION - 0TH YEAR).

Sl. No.	Name of activity.	Period of activity	Man-days.	Labour rate @ Rs 57.50	Material cost.	Total
1.	Survey, demarcation and pillar posting.	April	2	105.00	-	105.00
2.	Site preparation.	April	8	420.00	-	420.00
3.	Alignment and stacking of pits.	May	2	105.00	-	105.00
4.	Digging of pits of 30 cum cube.	May	40	2100.00	-	2100.00
5.	Contingency.				150	150
	Total.		52	2730.00	150.00	2880.00

C. 1ST YEAR PLANTING.

1.	Transportation of seedlings with poly-pots.	July	5	262.50	-	262.50
2.	Planting including casualty replacement, Manuring (Basal dose) and insecticide application	July-Aug	16	840.00	-	840.00
3.	Cost of fertilizer.	July-Aug.			1200	1200.00
4.	1 st weeding. (complete weeding.)	Aug-Sept.	7	367.50	-	367.50
5.	Manuring.	Sept-Oct.	5	262.50	-	262.50
6.	2 nd weeding (complete weeding.)	Oct-Nov.	5	262.50	-	262.50
7.	Soil working (50 cm radius around the plant.)	Oct-Nov.	7	367.50	-	367.50
8.	Fire tracing and inspection path.	Jan-Feb.	3	157.50	-	157.50
9.	Soil conservation measures in the form of staggered trenches.	Jan-Feb	10	525.00	-	525.00
10.	Watch and ward.	Oct-March	7	367.50	-	367.50
11.	Contingency (approx. 5% of total)				200	200.00
	TOTAL.		65	3412.50	1400.00	4812.50

D. 2ND YEAR MAINTENANCE.

1.	Casualty replacement with nursery cost.	Mar-July	12	630.00	-	630.00
2.	Application of fertilizer.	Aug-Sept.	4	210.00	-	210.00
3.	Cost of Fertilizer.	Aug-Sept.			600	600.00
4.	Weeding (complete weeding)	Aug-Sept.	5	315.00	-	315.00
5.	Soil working (50 cm radius around the pits.)	Oct-Nov.		367.50	-	367.50
6.	Fire tracing (2m wide fire line over 400mt long.)	Mar-Jan.	3	157.50	-	157.50
7.	Watch and ward.	Whole yr.	15	787.50	-	787.50
8.	Contingency (approx. 5% of Total)				150	150.00
	TOTAL.		47	2467.50	750.00	3217.50

E. THIRD YEAR MAINTENANCE.

1.	Weeding and application of fertilizer.	Aug-Sept.	7	367.50	-	367.50
2.	Cost of fertilizer.	Aug-Sept.			600	600.00
3.	Soil working (50 cm radius around the pits)	Oct-Nov.	7	367.50	-	367.50
4.	Fire tracing. (2 mt. Wide fire line over 400 mt. Long.)	Mar-June.	3	157.50	-	157.50
5.	Watch and ward.	Whole yr.	15	787.50	-	787.50
6.	Contingency (approx 5% of total)				100	100.00
	TOTAL.		32	1630.00	700.00	2330.00

ABSTRACT

Nursery:	3697.00	89,615.00
Advance work.	2880.00 x 24,240 Ha. =	1,30,744.50
Plantation 1 st year.	4812.50 x 24,240 Ha. =	1,16,655.00
Maintenance 2 nd year.	3217.50 x 24,240 Ha. =	77,992.00
Maintenance 3 rd year.	2380.00 x 24,240 Ha. =	57,691.00

Total. 16987.00 x 24,240 ha = 4,12,893.50

Asst. Commissioner of Forests, 6 or 4,12,000.00
 Biological Division

Annexure - J.

COST ESTIMATE FOR INCENTIVES TO BE PROVIDED TO THE VILLAGERS.

- Incentives to be provided to the villages around the plantation site for formation of VSS, organizing training camps, providing health, water facilities and other community based works for development of the villagers. (The detailed work programme is to be chalked out at the time of execution.)

Rs. 1000 per hect.
(As per F.D.A. Norm)

TOTAL (4000 x 24.240 Hect.)

= Rs. 96,960.00

Annexure - J.

TOTAL COST OF THE PROJECT.

Sl.No.	Item of work	Estimated cost (Rs.)
1.	Stone wall fencing over 0.588 km. and vegetative fencing over 1.900 km. around non-forest land.	Rs. 1,86,292.50
2.	Block plantation over 24.240 hect.	Rs. 4,52,893.50
3.	Incentive to be provided to the villagers tribes.	Rs. 96,960.00
	TOTAL.. (Limited to 15% of Block Plantation)	Rs. 7,36,144.50
		OR SAY (6) 6,00,000.00
		Rs. 7,36,200.00
		OR 6,00,000.00

[Signature]
Asst Conservator of Forests,
Keonjhar Division

[Signature]
Divisional Forest Officer,
Keonjhar Division,
Keonjhar Division

Technically Approved,
[Signature]
Chief Conservator of Forests (Nodal)
O/o. P.C.C.F. Orissa, BBSR.

COST ESTIMATE FOR FENCING PROTECTION AND REGENERATION OVER 15.16HA OF SAFETY ZONE AREA OF GUALI IRON ORE MINES OF SRI R.P. SAO

Block Plantation
Spacing 2 mtr x 2 mtr
2500 seedlings per Ha.
Pit size 30 cm x 30 cm x 30 cm
Wage rate of Rs. 52.50

* include casuelly replacement, manure, (Chow 200), & insecticide application

Sl. No.	Item of Work	Manday		Material cost	Total Amount (In Rs.)
		No.	Rs.		
1st Year Operation					
1	Survey & demarcation	2	105.00		
2	Clearance of site	8 (5)	420 (515.00)		
3	Alignment stacking	2.5 (2)	131.25 (0)		
4	Cost of seedlings including 10% extra @ Rs. 2.25 per seedling	60.5	3176.00		
5	Ditching	62.5 (50)	3281.25 (2150.00)		
* 6	Carriage of seedlings and planting	33 (25)	1728.75 (1362.50)		
7	Application of manure & insecticides	8 (2)	420 (630.00)		
8	1st weeding & Soil working (Comm. A)	11 (20)	577.50 (1050.00)		
9	2nd Weeding & Soil working	14 (25)	735 (767.50)		
10	Soil & Moisture conservation measures (gully plugging contour, check dam etc.)	10 (30)	525 (575.00)		
11	Fire line tracing and inspection path	3 (21)	157.50 (105.00)		
12	Watch & ward (Oct-Mar)	7 (3)	367.50 (472.50)		
13	Vegetative fencing	22	1155.00	13.50	
		215	11287.50	135.50	
2nd Year Operation					
14	Replace of casuality	28.5	1501.25	57.90	
	i) Cost of seedlings including 10% extra (275 nos @ Rs. 2.25 per seedling)	19	997.50	619.00	
	ii) Carriage & Planting	(5)	262.50		
15	Soil Working & Weeding	20	1050.00		
16	Application of manure & insecticides	6 (2)	315 (362.50)	997.50 (1000.00)	
17	Fire line tracing and inspection path	3 (2)	157.50 (105.00)		
18	Watch & ward	15 (18)	787.50 (545.00)		
19	Vegetative fencing	12	630.00		
		(63)	3307.50	1619.00	
3rd Year Operation					
20	Soil working, weeding & planting	27 (15)	1417.50 (787.50)	937.00	
21	Maintenance of fire line & inspection path	3 (3)	157.50 (105.00)		
22	Watch & ward	15 (18)	787.50 (545.00)		
23	Vegetative fencing	12	630.00		
		(27)	2467.50		
TOTAL		(325)	17062.50	10152.00	
24	Contingency & unforeseen expenditure (L.S.) 5%				
G.TOTAL					

Total cost of protection, fencing & regeneration (in Rs.) 28,75,000.00 - two lakhs fifty six thousand eight hundred forty nine only

Technically Approved
Chief Engineer
Forest Deptt.
BBSR
E Orissa, A.C. C.

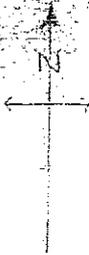
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Divisional Forest Officer,
Keonjhar Division.

MAP SHOWING 109.074 HACT. DEGRADED FOREST LAND IDENTIFIED WITHIN THE ATAI RESERVED FOREST IN PATNA RANGE OF KEONJHAR FOREST DIVISION FOR RAISING PENAL COMPENSATORY AFFORESTATION OVER DOUBLE THE ALREADY BROKEN-UP FOREST LAND AND ONE & HALF TIMES OF THE SAFETY ZONE AREA IN RESPECT OF GUALI IRON ORE MINES OF SRI RAMESH PRASAD SAO

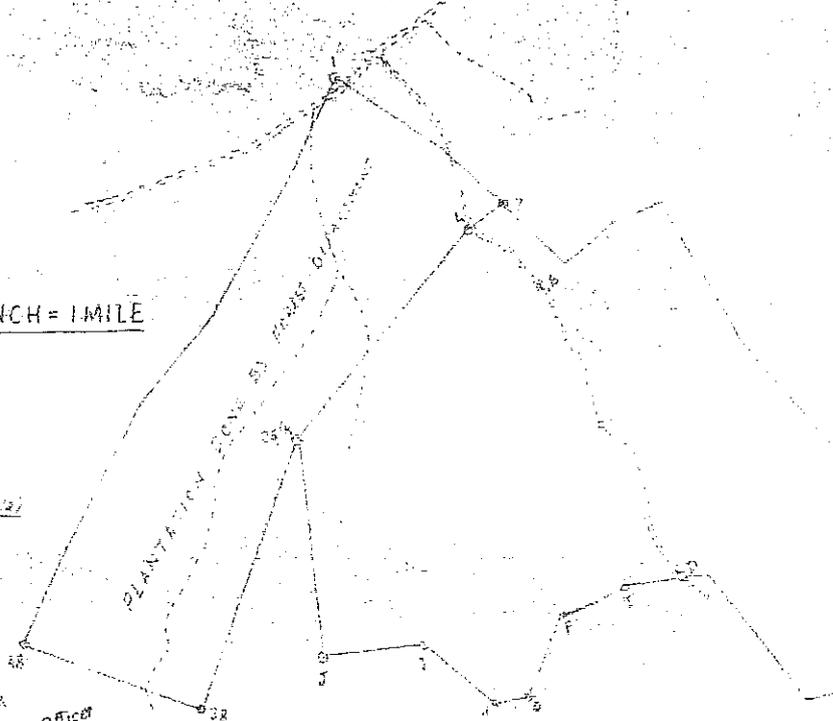
LEGEND

DOUBLE THE ALREADY BROKE UP FOREST LAND (42-417 x 2) 84-834 HACT.
 ONE & HALF TIME OF SAFETY ZONE... 24-240 HACT.
 TOTAL IDENTIFIED AREA WITHIN ATAI R.F. 109-074 HACT.



SCALE: 4 INCH = 1 MILE

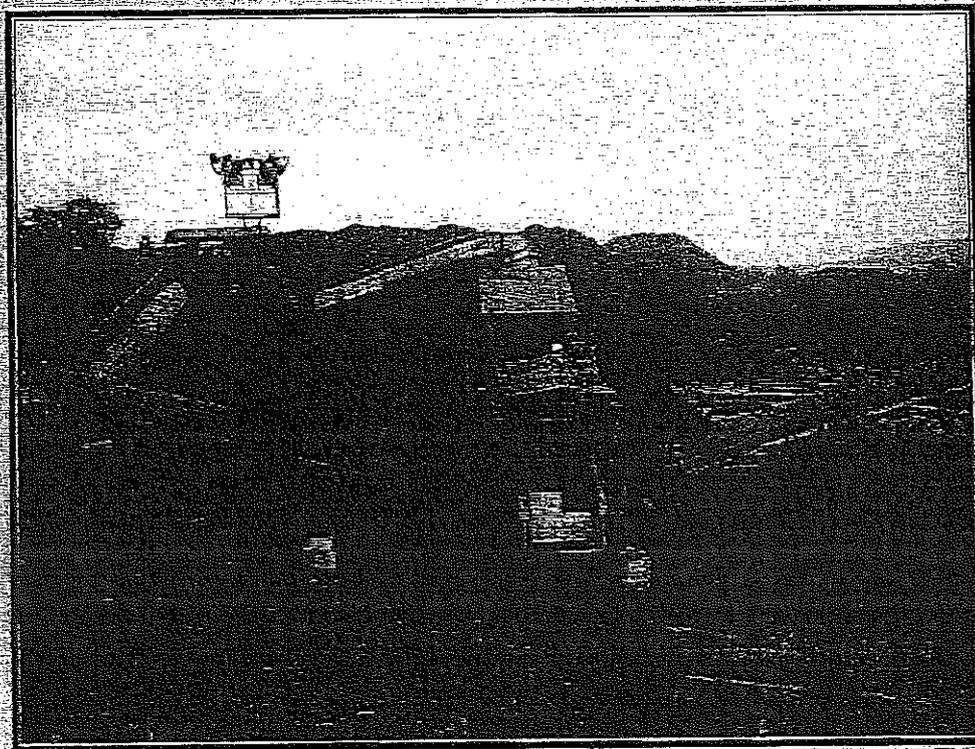
INDEX AREA (HACT.)
 ABCDEFGHJKL - 109-074



Patna
 Forest Section Officer
 PATNA SECTION
[Signature]

SIGN OF LESSEE SIGN OF THE ACF DFO, Keonjhar

**SITE SPECIFIC
CONSERVATION PLAN
FOR
GUALI IRON ORE MINE
OF
KEONJHAR DISTRICT**



**OF
SRI RAMESH PRASAD SAO**

Prepared by:

SRI S.K. PATNAIK, I.F.S. (Retd.)

&

SRI S.K. MOHANTY, O.F.S. (Retd.)

Approved

By FAX

OFFICE OF THE PRINCIPAL CCF (WILDLIFE) & CHIEF WILDLIFE
WARDEN, ORISSA 5TH FLOOR, B.D.A. APARTMENT, PRAKRUTI BHAWAN,
NILAKANTHA NAGAR, BHUBANESWAR- 751012.

Memo No. 321 Dt. 17.01.09
1WL-C-FC-385/08

To

The Chief Conservator of Forests (Nodal),
O/o PCCF, Orissa, Bhubaneswar.

Sub: Approval of Site Specific Wildlife Conservation Plan, Authentication of Location Map and the list of Flora & Fauna found in core zone and Buffer zone of Guali Iron Ore Mines of Sri R.P. Sao.

Ref: Govt. of India, MOEF letter No. J-11015/1155/2007-IA.II(M) dt. 8.5.08.

In inviting a reference to the above mentioned subject, I am directed to inform you that the site specific wildlife conservation plan for Guali Iron Ore Mines of Sri R.P. Sao in the Keonjhar district of Orissa has been approved by the Principal CCF(WL) & Chief Wildlife Warden, Orissa for Rs.277 lakhs for activities both inside and outside the project area and the above scheme is to be implemented by DFO, Keonjhar with funding from the Project proponent. The approved Conservation Plan in two numbers along with authenticated location map of the project are enclosed herewith for necessary action at your end.


Conservator of Forests (WL)

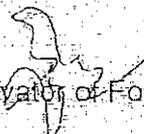
Memo No. 322 Dt. 17.01.09

Copy along with approved site specific wildlife conservation plan forwarded to DFO, Keonjhar Division for information & necessary action with reference to his Memo No. 4147 dt. 19.11.08 of CF, Rourakela Circle.


Conservator of Forests (WL)

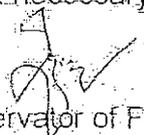
Memo No. 323 Dt. 17.01.09

Copy to C.F., Rourakela Circle for information & necessary action with reference to his Memo No. 4145 dt. 19.11.08.


Conservator of Forests (WL)

Memo No. 324 Dt. 17.01.09

Copy along with along with authenticated location map of the project and approved flora & fauna list forwarded to R.P. Sao, Mines Owner & Exporters, At New SBI, Joda, Bonajkela, Dist, Keonjhar for information & necessary action with reference to his letter dated 15.1.2009.


Conservator of Forests (WL)

LIST OF FLORA AND FAUNA FOUND IN CORE AND BUFFER ZONE OF
GUALI IRON ORE MINES

In Core Zone of the lease

Flora

Local Name	Botanical Name	Family Name
TREES		
Achu	<i>Morinda tinctoria</i>	Rubiaceae
Amla	<i>Emblica officinalis</i>	Euphorbiaceae
Ankula	<i>Alangium lamarkii</i>	Cornaceae
Asan	<i>Terminalia alata</i>	Combretaceae
Bahada	<i>Terminalia bellerica</i>	Combretaceae
Barakoli	<i>Zizyphus mauritiana</i>	Rhamnaceae
Baruna	<i>Crataeva religios</i>	Capparidaceae
Bel	<i>Aegle marmelos</i>	Rutaceae
Bana Bhalia	<i>Semicarpus anacardium</i>	Anacardiaceae
Behenta	<i>Lemonia acidissima</i>	Rutaceae
Bheru	<i>Chloroxylon swietenia</i>	Meliaceae
Char	<i>Buchnania lanzan</i>	Anacardiaceae
Chhatian	<i>Alstonia scholaris</i>	Apocynaceae
Dhaman	<i>Grewia tillaefolia</i>	Tiliaceae
Dhaura	<i>Anogeissus latifolia</i>	Combretaceae
Dimiti	<i>Ficus glomerata</i>	Moraceae
Haidu	<i>Adina cordifolia</i>	Rubaceae
Harida	<i>Terminalia chebula</i>	Combretaceae
Jamun	<i>Syzygium cumini</i>	Myrtaceae
Kalucha	<i>Glochidion lanceolarium</i>	Euphorbiaceae
Karada	<i>Cleistanthus collinus</i>	Euphorbiaceae
Katrang	<i>Gardenia latifolia</i>	Rubiaceae
Kendu	<i>Diospyrus melanoxylon</i>	Ebenaceae
Kumbhi	<i>Careya arborea</i>	Myrtaceae
Kusum	<i>Schleichera oleosa</i>	Sapindaceae
Sal	<i>Shorea robusta</i>	Dipterocarpaceae
Sidha	<i>Lagerstroemia parviflora</i>	Lythraceae
Semul	<i>Bombax ceiba</i>	Bombacaceae
Siris	<i>Albizia lebbek</i>	Mimosaceae
Sunari	<i>Cassia fistula</i>	Ceasalpinaceae
GRASSES		
Khara grass	<i>Imperata cylindrical</i>	Gramineae
Phulabandhuni	<i>Thysanolaena maxima</i>	Gramineae
SHRUBS / HERBS		
Anantamula	<i>Hemidesmus indicus</i>	Asclepidaceae
Arakha	<i>Calotropis gigantea</i>	Asclepidaceae

Local Name	Botanical Name	Family Name
Basanga	<i>Adhatoda vasica</i>	Acanthaceae
Dhatki	<i>Woodfordia fruticosa</i>	Lythraceae
Kurei	<i>Holarrhena antidysenterica</i>	Apcynaceae
CLIMBERS		
Atundi	<i>Combretum decandrum</i>	Combretaceae
Baidanka	<i>Mucuna monosperma</i>	Papilionaceae
Bichhuati	<i>Urtica dioica</i>	Euphorbiaceae
Mututri	<i>Smylax macrophylla</i>	Liliaceae
Staji	<i>Bauhinia valii</i>	Papilionaceae
Satabari	<i>Asparagus racemosus</i>	Liliaceae

Fauna

-Local Name	English Name	Zoological Name	Schedule
MAMMALS			
Barha	Wild Boar	<i>Sus scrofa</i>	III
Bilua	Jackal	<i>Canis aureus</i>	II
Heta	Hyena	<i>Hyaena hyaena</i>	III
Jhinka	Porcupine	<i>Hystrix indica</i>	IV
Kutura	Barking deer	<i>Muntiacus muntjack</i>	III
Neula	Mongoose	<i>Herpestes edwardsii</i>	II
BIRDS			
Bana Kukuda	Jungle fowl	<i>Gallus gallus</i>	IV
Kapta	Ring Dove	<i>Streptopelia decaocto</i>	IV
Koel	Cuckoo	<i>Eudynamis</i>	IV
Kumbhatua	Crow pheasant	<i>Scolopaceus</i>	IV
Gunduri	Partridge	<i>Centropus sinensis</i>	IV
Kathahana	Wood peacker	<i>Francolinus pondicerianus</i>	IV
REPTILES			
Dhamana	Rat snake	<i>Ptyas mucosus</i>	II


 DIVISIONAL FOREST OFFICER
 CUM WILD LIFE WARDENS
 KEONJHAR DIVISION

BUFFER ZONE (Gualti Iron Ore Mines)

Flora

Local Name	Botanical Name	Family Name
TREES		
Achu	<i>Morinda tinctoria</i>	Rubiaceae
Amla	<i>Embllica officinalis</i>	Euphorbiaceae
Ankula	<i>Alamgium lamarkii</i>	Cornaceae
Asan	<i>Terminalia alata</i>	Combretaceae
Bahada	<i>Terminalia belenica</i>	Combretaceae
Barakoli	<i>Zizyphus mauritiana</i>	Rhamnaceae
Baruna	<i>Crataeva religios</i>	Capparideceae
Bel	<i>Aegle marmelos</i>	Rutaceae
Bana Bhalia	<i>Semicarpus anacardium</i>	Anacardiaceae
Behenta	<i>Lemtonia acidissima</i>	Rutaceae
Bheru	<i>Chloroxylon swietenia</i>	Meliaceae
Char	<i>Buchnania lanzan</i>	Anacardiaceae
Chhatian	<i>Alstonia scholaris</i>	Apocynaceae
Dhaman	<i>Grewia tillaeifolia</i>	Tiliaceae
Dhaura	<i>Anogeissus latifolia</i>	Combretaceae
Dimri	<i>Ficus glomerata</i>	Moraceae
Haldu	<i>Adina cordifolia</i>	Rubaceae
Harida	<i>Terminalia chebula</i>	Combretaceae
Jamun	<i>Syzygium cumini</i>	Myrtaceae
Kalucha	<i>Glochidion lanceolatum</i>	Euphorbiaceae
Karada	<i>Cleistanthus collinus</i>	Euphorbiaceae
Katrang	<i>Gardenia latifolia</i>	Rubiaceae
Kendu	<i>Diospyrus melanoxylon</i>	Ebenaceae
Kumbhi	<i>Careya arborea</i>	Myrtaceae
Kusum	<i>Schleichera oleosa</i>	Sapindaceae
Sal	<i>Shorea robusta</i>	Dipterocarpaceae
Sidha	<i>Lagerstroemia parviflora</i>	Lythraceae
Semul	<i>Bombax ceiba</i>	Bombacaceae
Siris	<i>Albizzia lebbek</i>	Mimosaceae
Sunari	<i>Cassia fistula</i>	Ceasalpinaceae
GRASSES		
Khara grass	<i>Imperata cylindrical</i>	Gramineae
Phulabandhuni	<i>Thysanolaena maxima</i>	Gramineae
SHRUBS / HERBS		
Anantamula	<i>Hemidesmus indicus</i>	Asclepidaceae
Arakha	<i>Calotropis gigantea</i>	Asclepidaceae
Basanga	<i>Adhatoda vasica</i>	Acanthaceae
Dhatki	<i>Woodfordia fruticosa</i>	Lythraceae

Local Name	Botanical Name	Family Name
Baidanka	<i>Mucuna monosperma</i>	Papilionaceae
Bichhuali	<i>Urlica dioica</i>	Euphorbiaceae
Mututri	<i>Smylax macrophylla</i>	Liliaceae
Siali	<i>Bauhinia Valli</i>	Papilionaceae
Satabari	<i>Asparagus racemosus</i>	Liliaceae

Fauna

Local Name	English Name	Zoological Name	Schedule
MAMMALS			
Barha	Wild Boar	<i>Sus scrofa</i>	III
Bilua	Jackal	<i>Canis aureus</i>	III
Bhalu	Sloth bear	<i>Melur susursinus</i>	IV
Hela	Hyena	<i>Hyaena hyaena</i>	III
Jhilika	Porcupine	<i>Hystrix indica</i>	IV
Kutura	Barking deer	<i>Muntiacus muntjack</i>	III
Hati	Elephant	<i>Elephas maximus</i>	I
Neula	Mongoose	<i>Herpestes edwardsii</i>	II
Godhi	Yellow monitor	<i>Varanus monitor</i>	I
BIRDS			
Bana Kukuda	Jungle fowl	<i>Gallus gallus</i>	IV
Kapta	Ring Dove	<i>Streptopelia decaocto</i>	IV
Koel	Cuckoo	<i>Eudynamis scolopaceus</i>	IV
Kumbhatua	Crow pheasant	<i>Centropus sinensis</i>	IV
Gundari	Partridge	<i>Francolinus pondicerianus</i>	IV
Kathahana	Wood pecker	<i>Picoides nanus</i>	IV
REPTILES			
Dhamana	Rat snake	<i>Ptyas mucosus</i>	II


 DIVISIONAL FOREST OFFICER
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P R E F A C E

Sri S. K. Patnaik, I.F.S.
Former Chief Wildlife Warden, Orissa
Bhubaneswar

The Guali Iron Ore Mine of Sri Ramesh Prasad Sao is located partly in Sidhamath R.F. and other forest and non-forest land of Keonjhar district. This mine is being worked out since 1953, starting with its previous owner M/s. M.H. Rehman. It is beyond any doubt that prolonged working has affected the wildlife and its habitat, both within and outside the mine, and shall continue to affect during continuation of the mining operation.

This plan aims at recommending certain measures to minimize such impact despite the continuation of operation and other ancillary activities. I hope that this plan shall be fully implemented and wild animals shall continue to thrive well and even improve their status.

My thanks are due to Dr. P.R. Karat, IFS, DFO, Keonjhar Forest Division and his office as well as field staff to have provided all required information for facilitating the preparation of this plan.

I thank Sri Mohammad Alqama, Mines Manager and Sri Rahul Bhadra, Geologist of M/s. R. P. Sao for all assistance and logistic support for helping preparation of the plan.

This plan would not have been possible without both field and office support from Sri S.K. Mohanty, OES (Rtd.). My thanks are due to him.


(S. K. Patnaik)

EXECUTIVE SUMMARY

- 0.1.0 Guali Iron Ore Mine in Keonjhar district was originally granted in favour of M.H.Rehman in 1953 spreading over an area of 365.026 Ha out of this 268.117 Ha of forest land including 57.579 Ha of the Sidhamath R.F. and non-forest land of 96.909 Ha. 42.417 Ha of forest land is already broken up.
- 0.1.1 The total estimated mineable reserve is 58.801 MT, out of which 5.7MT is targeted to be produced per year for 11 years of the lease. According to guideline issued by the Chief Wildlife Warden, Orissa the lessee should prepare and implement a conservation plan for the mine and it's surrounding of 10 Kms in radius. Hence this plan has been prepared, to ensure minimum adverse impact to the wildlife and its habitat.
- 0.2.0 This mine lies on the eastern limb of famous horse shoe shaped iron ore belt lying in Orissa and Jharkhand. This is situated 20 Kms away from Barbil lying on NH-215. Two hillocks and a flat valley between them form the lease varying in attitude between 500 to 598m from MSL.
- 0.2.1 The explored mineable reserve is 58.80mt with 65% grade. The mining plan has been approved by IBM on 11.12.2007.
- 0.2.2 The climate is tropical with average rainfall of 1534.5mm/annum. The minimum temperature is 7.5°C while maximum average is 29.5°C.
- 0.2.3 The forest of the region is classified as 3C/C2e(iii) "Moist Peninsular Valley Sal". Sidhamath R.F. has been allotted to "Sal Conversion Working Circle" according to current Working Plan of Keonjhar Forest Division.

- 0.2.4 The area drains to Karo River through Topadihi nala. The total population of 39 villages lying within 10 Kms radius is 25,577. This mine shall provide employment to 183 persons directly. The main avocation of is cultivation of paddy, maize, cow pea and vegetables are grown in areas with good water availability.
- 0.3.0 It is an open cast mechanized mine. Over all bench size in 10m high and 30m wide. Though the faces are almost vertical 70° to 80°, the ultimate slope angle is aimed to be less than 45°.
- 0.3.1 Total waste dump volume is estimated to be 4881913 m³. Drilling shall be done with 8.5mm & 11.5mm drilling and blasting shall be done with ANFO and Ammonium Nitrate based Class-II explosives at 3:1 ratio.
- 0.4.0 The threats to the wildlife within the mine area include loss of vegetation, forest fire, soil erosion, moisture loss, poaching, noise, dust, lighting, garbage, accidental fall of animals and accidents.
- 0.4.1 The perceived threats outside the lease (Zol) include loss of habitat, forest fire, soil erosion, man-animal conflict, over dependence of people on the forest etc.
- 0.5.1 The suggested measures to be taken within the mine are protection of habitat that includes 2 Bana Sahayaks, planting of 150 Ha in blanks, slopes etc with indigenous edible species; fire protection with cleared fire lines, 4 Fire Watchers with equipments; soil and moisture conservation measures including contour trenching, check dams, planting of erosion resisting species, sprinkling twice daily for dust suppression etc. Other measures include reduction of noise through proper maintenance of vehicles, muffled blasting at fixed time; using dipper in vehicles, focusing fixed lights away from forest patches to minimize impact of lighting; reduction, reuse and

recycling of garbage; preventing grazing by cattle; prevention of poaching of animal etc. Awareness among the work force need be created through various measures; prevention of fall of animals through solar fence on pit mouth; restoring back straying animals to their habitat.

0.5.2 The steps for the zone of influence shall include planting of 100 Ha, creation of Grama Bana Samitis, engaging 2 Bana Sahayaks, prevention of forest fire through fire lines and 2 fire watchers, cattle to be immunized, poaching should be prevented with support of Forest Department, VSS/GBS etc. The pressure on forest shall be reduced by training and supporting different income generating activities. The man animal conflict shall be addressed through providing Rs.3.00 lakhs corpus fund, providing solar/electric street lights, alternate non-edible crops, provision of metal bins, organize people for driving away depredating animals with requisite tools etc. The habitat to be improved with 2 artificial salt licks and 1 game tank and planting of edible species. Conservation awareness should be created among local people through various means.

0.5.3 The plan period shall be of 10 years and it shall be monitored by a monitoring committee headed by the DFO, Keonjhar Division. All laws and guidelines to be followed and duplication prevented.

0.6.1 The total cost of the plan is **Rs.203.00 Lakhs**. Out of this **Rs.93.00 Lakhs** shall be deposited with the D.F.O., Keonjhar for activities in the Zone of Influence and the rest shall be spent by M/s. R.P. Sao within the lease.

CHAPTER - I INTRODUCTION

- 1.0.1 Lease details - Government of Orissa, Mining & Geology Department had granted a lease over 902.00 acres or 365.026 Ha in Sidhamath Reserve Forest and in villages Guali, Panduliposi, Rugudihi, Laidapada and Topodihi in Barbil tahasil of Champua Sub-Division of Keonjhar Dist. for mining of Iron ore in favour of M.H.Rehman for a period of 20 years.
- 1.0.2 Lease period - The deed was executed on 27.06.1953 and was valid up to 26.06.1973. During 1st renewal of the lease, the State Govt. had renewed the lease for a further period of 20 years ending 26.06.1993. During the renewal period the said lease was transferred in favour of Sri Ramesh Prasad Sao on 15.11.1986 with prior approval of the State Govt. Prior to expiry of the lease period Sri Sao has applied to the State Govt. for renewal of the lease (2nd RML). Thus the lease is valid till 26.06.2013.
- 1.0.3 Lease area - The total granted lease area is 365.026 ha. This includes 268.117 ha of forest land and 96.909 ha of non-forest land. The forest land constitutes 57.579 ha of Sidhamath R.F. and 210.538 ha of Revenue Forest land in villages Guali, Panduliposi, Rugudihi, Laidapada and Topodihi in Barbil tahasil of Champua Sub-Division of Keonjhar Dist. The non-forest land and tenanted land over 96.909 ha is located in villages-Panduliposi, Rugudihi, Loidapada and Topodihi. The land schedule has also been furnished below:-

Land Schedule Pattern of the Lease Area

Category	Type of Land	Area (In Acres)	Area (In Hects.)
Forest	Reserved Forest	142.28	57.579
	Village Forest	520.24	210.539
Sub-Total		662.52	268.117
Non Forest Land	Agricultural Land	209.82	84.913
	Waste land / hilly area	14.84	6.004
	Village site	5.16	2.088
	Water Bodies	6.97	2.822
	Road	2.69	1.082
Sub-Total		239.48	96.909
Grand Total		902.00	365.026

1.0.4 **Brief note on diversion:** Sri Sao during 1996 had applied to Govt. of India, Ministry of Environment & Forests, New Delhi for diversion of 251.957 Ha of forest land U/s 2 of Forest (Conservation) Act, 1980. 16.160 Ha was set aside for Safety Zone development from the total forest land. The forest land applied for diversion includes 42.417 Ha of broken and 209.540 Ha of virgin forest land.

Again Sri Sao has applied for forest diversion for remaining 209.54 Ha of forest land.

1.0.5 **Approval of Mining Plan:** Initially the Mining Plan was prepared with an annual production of target 0.335 million ton of Iron ore. Now the mineable reserve was estimated to be 58.8 million tons. The annual production from two quarries namely Topodihi and Baliasahi is proposed to be 5.70 million tons.

1.0.6 **Recommendation of the State Government:** State Government in Forest & Environment Department vide their letter No.10F(Cons.)111/96-22495/F&E DL04.10.1996 had recommended for diversion of 209.540 Ha of forest land for mining and allied purposes. But Government of India, MoEF in their letter No.8-96/96-FC DL14.01.2005 granted diversion of 42.417 Ha of broken forest land only with 16 conditions. The lessee has complied with all the conditions.

1.0.7

Scenario of present proposal - Till-date, the lessee has explored all the 12 broken pits. For further exploration as well as widening of the pits, there is a need for diversion of virgin forest land. Moreover on grant of diversion of forest land, the lessee explored the area in a systematic manner and the mineable reserve was increased to 58.80 million tons. Considering the increased requirement/mechanization of the mine, the lessee has modified the annual production to 5.7 million tons. Thus the requirement for diversion of virgin forest land has become necessary to accommodate the increased annual production. Therefore, now the lessee has submitted a proposal for diversion of the virgin forest land over 209.540 Ha to Govt. of India, MoEF. At present preparation of a Conservation Plan has become necessary as per the guideline issued by the Chief Wildlife Warden, Orissa vide his letter No.3849/WL Dt.03.06.2006. Therefore, the lessee has requested the author to prepare this plan.

1.0.8

Now, the lessee is operating mine in a portion of the lease holds area. The impact on environment is moderate. But on grant of the entire virgin land and on exploration of the said are, the impact will be enhanced. The increased mining activity, vehicular traffic, dust pollution, lighting effect of vehicles deposit of mine waste, anthropogenic pressure, degradation of forest area by felling of trees for mining purpose and ultimately limiting tranquility of the area are some of the adverse factors which may affect the bio-diversity of this area in general and wildlife in particular. Therefore, minimizing the said factors is the mandate of this plan. The remedial measures suggested in this plan are meant to regulate mining of ore in one hand and manage the wildlife habitat on the other in a balanced way causing least possible obstruction to either.

Since the adverse impact of mining is bound to be felt in the adjoining area, this plan also aims at suggesting remedial measures for the zone of influence over 10 Kms radius from the core of the lease area.

CHAPTER - II

DETAILS OF PROJECT SITE

- 2.0.1 **Brief of the lease area** - Guali Iron Ore Mine of Sri R.P. Sao is the part of Sidhamatha R.F. and areas of the revenue land of five villages such as Guali, Panduliposi, Rugudi, Laidapada & Topodihi in Barbil Tahsail of Keonjhar Dist. The lease area represents a hilly terrain and is a part of the eastern limb of the famous Horse-shoe shaped iron ore belt of Orissa and Jharkhand state.
- 2.0.2 **Communication** - The lease area being located nearer to several working mines has got adequate infrastructural facilities such as communication, availability of power and water resources. The lease area is connected by road from Panikoili-Barbil-Koira-Rajamunda National Highway No.215. Barbil is the nearest Railway Station in Keonjhar Dist. is situated at a distance of 22 K.M. from the leasehold area while Koira in Sundergarh Dist. is situated at a distance of 13.Kms.
- 2.0.3 **Location** - This lease area is located in Survey of India Topo Sheet No.73 G/5 & F/8 and bounded by latitude $21^{\circ} 59' 23''$ to $22^{\circ} 00' 00''$ north and longitude $85^{\circ} 17' 07''$ to $85^{\circ} 22' 09''$ east.
- 2.0.4 **Topographical features** - This lease area forms part of two gentle to moderately slopping hillocks with the middle portion being almost flat valley. The gradient in the western side is towards north and the gradient on the eastern side is towards west. The gradient varies from 0 to 1:3. The general topography of the area is thus undulating in nature having the highest R.L. of 598 m and lowest 500 m above MSL.
- 2.0.5 **Drainage** - Seasonally flowing streams are found in the lease hold area. Surface run-off of these nalas during rainy season follow the gradient of the terrain and pass through the natural nalas which are existing in the hill. These small

nalas joins the Topodihi nala flowing in a northward direction and ultimately joins the Karo River which is the main drainage system of this area flowing from southwest to northeast direction.

- 2.0.6 **Mineable reserve** - There is no public road, railway or perennial water source etc. inside the lease area. The mineable reserve so far explored comes to 58.8 million tons as per Mining Plan approved by IBM vide their letter (No.314(3)/2007-MCCM(CZ)/MP-27 Dated 11.12.2007. The Iron ore grade is 65% Fe while the cut-off grade is 58% Fe.
- 2.0.7 **Climate** - The average annual rainfall is 1534.5 mm. Nearly 80% of the rainfall is received by the south-west monsoon between June to September. Commonly heavy rainfall is experienced in August. The minimum temperature of the site is 7.5°C in winter and 29.5°C during summer. The maximum summer temperature is 47°C. The relative humidity varies from 20% to 98%. The pre-dominated wind direction varies from north to north-east i.e. during day time. The lease hold area being located in tropical region experiences very hot summer and mild winter.
- 2.0.8 **Local geology** - The lease hold area exposes different litho-units comprising of banded iron formations with iron ore and ferruginous shale. The alluvial soil covers around 25% of the lease hold which is confined to the lower attitudes in the lease area.
- 2.0.9 **Drainage** - Surface run-off during rains follow the gradient of the terrain and pass through natural nalas existing in the hill. The small nalas join the Topodihi nala flowing in a northward direction and ultimately drains to Karo river which is the main drainage system of the area flowing from south-west to north-east direction. Depth of ground water table in the leasehold area is 50 meter deep from general surface level which is up to RL 560 meter in Topodihi Block and RL 510 meter in Balisahi Block.

2.1.1 **Forest and forest type:** Keonjhar District has a forest cover of 5,390 Sq.Km. out of which dense forest constitute 3036 Sq.Km. (Canopy density 0.40 and above) and open forest cover of 2,327 Sq.Km. (Canopy density of 0.10 to 0.40). This is as per information furnished in State of India's Forest Report, 2003 prepared by Forest Survey of India, Dehradun. Champian & Seth has classified the forests of this region in northern part of Keonjhar Division in to two major groups according to 'Forest Types of India'.

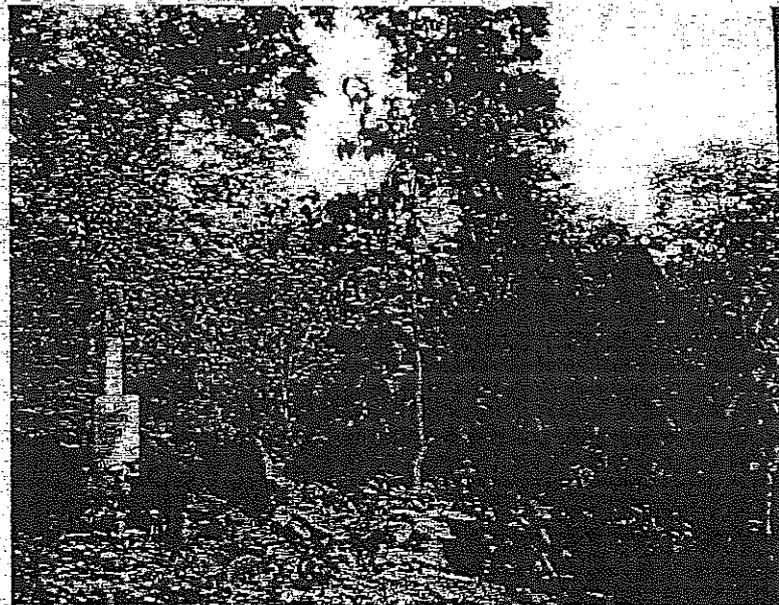
- a) Group 3C – Northern Tropical Moist Deciduous Forests.
- b) Group 5B – Northern Tropical Dry Deciduous Forests.

Of-course variations do occur due to reasons like climatic, edaphic, abiotic and biotic factors. Microclimate also influences the Forest Types. Bamboo is sparsely noticed in this area. Taking all these into consideration the vegetation has further been classified into three sub-types:-

- i) 3C/C2e(iii) Moist Peninsular Valley Sal.
- ii) 5B/C1c Dry Peninsular Sal Forests.
- iii) 5B/C2 Northern Dry Mixed Deciduous Forest.

However, Sidhamath R.F. in which this lease area is located, has been included in Forest type – 3C/C2e(iii) Moist Peninsular Valley Sal. Total area of this R.F. is 14,754 ha, which is distributed in to hills, ridges, plains and valleys. The mining lease of Sri R.P.Sao is however located in the hilly tract. Sal is the dominant species all over the R.F. But in this lease area Sal percentage is low. The field inspection reveals that, mostly miscellaneous species have dominated Sal. Due to non-working of the virgin forest land included in the lease area for a prolonged period, climbers have infested the dominant trees and retarded their growth. The associates of Sal are Piasal (*Pterocarpus marsupium*), Gambhari (*Gmelina arborea*), Bandhan (*Ougeinia ougeinensis*), Kurum

(*Adina cordifolia*), Asan (*Terminalia alata*), Dhaura (*Anogeissus latifolia*), Kendu (*Diospyrus melanoxylon*), Jamun (*Syzygium cumini*), Kasi (*Bridelia retusa*), Bahada (*Terminalia belerica*), Patuli (*Lagerstroemia parviflora*), Mango (*Mangifera indica*), Kusum (*Schleichera oleosa*) etc. The regeneration percentage of the dominant species is poor. Mostly Atundi climber (*Combretum decandrum*) and *Leea chinensis* have infested the whole area. The growth of Sal and other species which now exist over the leasehold area are mostly coppice shoots and hence the growth is mostly deformed. Whatever crop is in pole stage or sapling stage has vigor to grow provided adequate protection is extended. The quality of forest varies from III to IV. The canopy density has been estimated to be 0.3.



2.1.2

Working Plan Prescription: The lease area has been allotted to Rehabilitation Working Circle according to the draft working plan for the undivided Keonjhar Division submitted for approval. The special objective for managing this area under the rehabilitation working circle is given in the following paragraphs:

Method of treatment

- (1) All dead and uprooted trees and trees which are visibly hollow from outside shall be marked.
- (2) C/D grade thinning shall be carried out in the young crop with special preference for Sal.
- (3) Over wood of 50 cm diameter and over shall be marked for felling where there are at least 4-6 poles of 10 meters height, except within 50 meters of streams and nalla banks, in gullied areas and areas susceptible to erosion.
- (4) Fruit bearing trees shall be retained.
- (5) All marked trees likely to damage the young crop for felling shall be lopped.
- (6) All climbers shall be cut at the time of annual marking.
- (7) The marking in no case shall be done by an Officer below the rank of a trained Forest Range Officer.
- (8) The area should be protected against fire for 5 years. The regeneration areas shall be strictly protected from grazing.
- (9)

2.1.3

Flora: The common species noticed in this working circle and the zone of influence of 10 Kms is furnished below:

Local Name	Botanical Name	Family Name
TREES		
Achu	<i>Morinda tinctoria</i>	Rubiaceae
Amla	<i>Emblica officinalis</i>	Euphorbiaceae
Ankula	<i>Alamgium lamarkii</i>	Cornaceae
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Bana Bhalia	<i>Semicarpus anacardium</i>	Anacardiaceae
Behenta	<i>Lemonia acidissima</i>	Rutaceae
Bheru	<i>Chloroxylon swietenia</i>	Meliaceae

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Chhatian	<i>Alstonia scholaris</i>	Apocynaceae
Dhaman	<i>Grewia tillaefolia</i>	Tiliaceae
Dhaura	<i>Anogeissus latifolia</i>	Combretaceae
Dimiri	<i>Ficus glomerata</i>	Moraceae
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Karada	<i>Cleistanthus collinus</i>	Euphorbiaceae
Katrang	<i>Gardenia latifolia</i>	Rubiaceae
Kendu	<i>Diospyrus melanoxylon</i>	Ebenaceae
Kumbhi	<i>Careya arborea</i>	Myrtaceae
Kusum	<i>Schleichera oleosa</i>	Sapindaceae
Sal	<i>Shorea robusta</i>	Dipterocarpaceae
Sidha	<i>Lagerstroemia parviflora</i>	Lythraceae
Semul	<i>Bombax ceiba</i>	Bombacaceae
Siris	<i>Albizia lebbek</i>	Mimosaceae
Sunari	<i>Cassia fistula</i>	Cesalpiniaceae
GRASSES		
Khara grass	<i>Imperata cylindrical</i>	Gramineae
Phulabandhani	<i>Thysanolaena maxima</i>	Gramineae
SHRUBS / HERBS		
Anantamula	<i>Hemidesmus indicus</i>	Asclepidaceae
Arakha	<i>Calotropis gigantea</i>	Asclepidaceae
Basanga	<i>Adhatoda vasica</i>	Acanthaceae
Dhatki	<i>Woodfordia fruticosa</i>	Lythraceae
Kurei	<i>Holarrhena antidysenterica</i>	Apocynaceae
CLIMBERS		
Atundi	<i>Combretum decandrum</i>	Combretaceae
Bardanka	<i>Mucuna monosperma</i>	Papilionaceae
Bichhuati	<i>Urtica dioica</i>	Euphorbiaceae
Mutatri	<i>Smylax macrophylla</i>	Liliaceae
Siali	<i>Bauhinia vari</i>	Papilionaceae
Satabari	<i>Asparagus racemosus</i>	Liliaceae



2.1.4

Fauna: This lease area does not form part of any national park, Wildlife Sanctuary, Elephant Reserve, Biosphere Reserve or Tiger Reserve. The fauna noticed in this area including the zone of influence are:

Local Name	English Name	Zoological Name	Schedule
MAMMALS			
Barha	Wild Boar	<i>Sus scrofa</i>	III
Bilua	Jackal	<i>Canis aureus</i>	II
Bhalu	Sloth bear	<i>Melursus ursinus</i>	I
Heta	Hyena	<i>Hyaena hyaena</i>	III
Jhinka	Porcupine	<i>Hystrix indica</i>	IV
Kutura	Barking deer	<i>Muntiacus muntjack</i>	III
Neula	Mongoose	<i>Herpestes edwardsii</i>	II
BIRDS			
Bana	Jungle fowl	<i>Gallus gallus</i>	IV
Kukuda			
Kapta	Ring Dove	<i>Streptopelia</i>	IV

Local Name	English Name	Zoological Name	Schedule
		<i>decaocto</i>	
Koel	Cuckoo	<i>Eudynamis scolopaceus</i>	IV
Kumbhatua	Crow pheasant	<i>Centropus sinensis</i>	IV
Gunduri	Partridge	<i>Francolinus pondicerianus</i>	IV
Kathahana	Wood peacker	<i>Picoides nanus</i>	IV
REPTILES			
Dhamana	Rat snake	<i>Ptyas mucosus</i>	II
Godhi	Yellow monitor	<i>Varanus monitor</i>	II

According to Elephant Census carried out by the State Forest Department in the year 2007 there are total number of 33 elephants, out of which 8 are adult males, 1 sub adult male, 14 females, 3 sub-adult females, 1 of unknown sex, 1 juvenile and 5 calves. (Source: - Wildlife Wing, Forest Department).

2.2.1

Population: In the leasehold area no habitation exists. However, in the zone of influence, there are 39 villages having 5684 house-holds. Total population of these villages is 31,763 with 54% male and balance female. S.C. percentage is 8% and S.T. 70%. The literacy percentage is 27% and out of the total population 35% are mine workers. The demographic features have been furnished below:

Demographic Profiles of Koida P.S.

Sl No	Name of the Village	No. of Households	Male	Female	Children	Total Population
1	Tada	629	1247	1072	563	2882
2	Jhirpani	169	428	404	164	996
3	Kalta	553	1188	922	390	2500
4	Nandikasira	70	133	129	48	310
5	Rengalbeda	115	248	243	121	612

Sl No	Name of the Village	No. of Households	Male	Female	Children	Total Population
6	Kasira	136	336	356	117	809
7	Bhanjapali	113	263	254	134	651
8	Sequsahi	45	1061	124	48	1233
9	Bindipur	84	191	188	58	437
10	Saindipur	100	226	226	97	549
11	Kalmanga	244	554	544	213	1311
12	Teherei	100	232	255	120	607
13	Koida	874	1938	1661	731	4330
14	Harischandrapur	205	452	410	166	1028
15	Kusumdihi	140	302	314	165	781
16	Kamanda	165	473	446	166	1085
17	Kuta	85	250	266	107	623
18	Dengula	162	497	444	117	1058
19	Tentulidihi	40	111	104	52	267
20	Nuagaon	58	169	180	56	405
21	Kadadiha	118	282	316	107	705
	Total	4205	10581	8858	3740	23179

Demographic Profile of Barbil Block

Sl No	Name of the Village	No. of Households	Male	Female	Children	Total Population
1	Bhuranraida	135	337	339	151	827
2	Kundurapani	64	143	148	78	369
3	Camp of TISCO	-	-	-	-	-
4	Ragudihi	74	173	180	63	416
5	Laidapada	77	230	189	126	545
6	Bhuyanrudakala	51	123	130	35	288
7	Kouarudakla	56	163	152	56	371
8	Topadihi	62	165	157	63	385
9	Guali	120	357	305	111	773
10	Nuagaon	112	272	252	79	603
11	Gandhalpada	69	196	186	100	482
12	Barapada	72	196	190	85	471
13	Katesahi	85	188	204	97	489
14	Chromalada	136	317	285	156	758
	Total	1113	2860	2717	1200	6777

Demographic Profile of Joda Block

Sl No	Name of the Village	No. of Households	Male	Female	Children	Total Population
1	Tilapur	26	42	39	5	86
2	Cbhatabar	91	208	154	47	409
3	Khanda	27	64	54	20	138
4	Khandabandha	222	497	456	221	1174
	Total	366	811	703	293	1807

- 2.2.2 **Employment** - Mining in such remote areas is the main source of employment to the local tribal people. This mine now provides employment to 183 persons.
- 2.2.3 **Agriculture** - Out of the total population of the villages existing in the Zone of influence, only 35% are mine workers. The rest tribal population is practicing cultivation like Paddy, maize, bajara, jawar cowpea, barsim etc. At places where there is water availability the people also grow vegetables. The agricultural products are mainly used by people for own benefited use.
- 2.2.4 **Industries** - Although at present no major industries have come-up excepting some Sponge Iron plants, crushers and beneficiation plants gradually interest is growing for establishment of Integrated Steel Plant, Iron ore washery, Pelletisation Plants and other ancillary ones.
- 2.3.1 **Land-use Pattern** - Mining leases operating in forest as well as non-forest area are more concerned with the land use pattern to which Govt. of India, MoEF approves under F (C) Act, 1980 and any change in the pattern needs further approval. The land use pattern is co-related to the forest land to be worked during a specific period which is in one hand co-terminus to the lease period and in the other hand corroborates with the phasing pattern of Mining Plan approved by IBM. Even if MoEF grants approval for use of forest land in one order, the trees need to be felled over the forest land are allowed in phases according to the phasing in the mining Plan. This process has an advantage that, the

forest land need to be worked in II, III & IV phases of the lease period (6h to 20 the year) can be utilized by the wildlife. However, the land use pattern proposed by the User Agency is as follows:

Sl. No.	Purpose	Forest land (Ha)			Non Forest Land (Ha)	Total (Ha)
		R.F.	Res Forest	Total		
01	Mining	52.689	193.688	246.377	06.204	252.581
02	Storing of minerals				03.600	03.600
03	Dumping of overburden		02.110	02.110	06.000	08.110
04	Storing of tools & machineries				10.000	10.000
05	Const. of building, site, Office, workshop, power station, placing crusher, beneficiation plant, weigh bridge, fuel unit etc.				06.400	06.400
06	Township/ Housing Colony				05.500	05.500
07	Const. of road, railway siding etc.		03.380	03.380	05.800	09.180
08	Magazine		0.090	0.090		0.090
	Sub-Total	52.689	199.268	247.248	43.504	295.461
09	Safety Zone	04.890	11.270	16.160	04.911	21.071
10	Area covered under Plantation				48.494	48.494
	Grand Total	57.579	210.538	268.117	96.909	365.026

CHAPTER -III

PROCESS OF MINING

- 3.1.0 **Method of mining** - This is an open cast Iron ore mine located in village - Guali in Joda Community Development Block of Barbil Tahasil in Keonjhar Dist. Factors like topography, estimated mineable reserve, grade of ore, nature of deposit, percentage of intercalated waste, incidence of Iron ore and rate of production are the basis to adopt this open cast method.
- 3.2.0 **Deposits** - The lease area is enriched with two major groups of deposits known as Topodihi and Baliasahi. Both the deposits are proposed to be worked simultaneously with the production of 5.5 mt of Iron ore. Topodihi block has been proposed to be developed with the erection of 10m high and 30 m wide faces, while Baliasahi block will be developed by 7m high and 25 m wide faces.
- 3.3.0 **Bench size**- The individual bench faces will be kept nearly vertical (70° to 80°). Width of the ore benches has been proposed as such to facilitate the easy movement of loaded as well as un-loaded tippers. Overall quarry slope will be maintained at less than 1:3 for developing 10m high and 30m wide benches in Topodihi Block and 7m high with 25m wide benches in Baliasahi block.



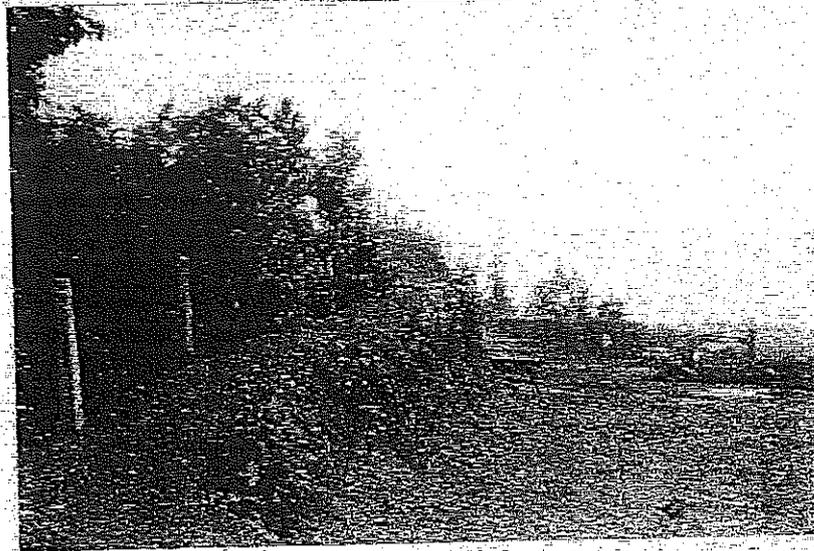
- 3.4.0 **Ultimate extent and size of pits** - Ultimate extent of quarry pit will cover a total of 215.5 ha surface area. Approximately two dimensional sizes of pits will be i.e. 930m length x 860 m width for Topodihi and 720 m length x 325 m width for Baliasahi Block. Maximum depth of the working has been proposed to be 20 mt from surface level. Ultimate pit slope angle will be kept at less than 45° with the horizontal. The size of benches will be 10m each for Topodihi and 7m for Baliasahi.
- 3.5.0 **Ultimate Capacity of Waste Dump** - During the conceptual period 1708000m³ of waste will be generated. Ultimate capacity of the waste dump will be 1.43 Mm³. Remaining waste will be back-filled concurrently depending upon the availability of the exhausted quarry or part there-of.
- 3.6.0 **Drilling** - Drilling will be effected through 85mm & 115mm diameter blast hole drills. Blasting will be done with the help of ANFO and nitroglycerine based explosives at 3:1 ratio. Shovel with 0.9m³ & 2.67m³ bucket capacity will be used for loading and excavation. Transportation will be performed by 10t capacity tippers and 35t dumpers.
- 3.7.0 **Blasting** - In Topodihi Block 11m deep bore-holes will be drilled which consists of 10m bench height and 1m sub-grade drilling. Dia of the hole will be 115mm. In Baliasahi Block 7.7m deep holes will be drilled by 85mm dia drills whereas bench height & sub-grade drilling are 7m and 0.7m respectively. ANFO & High explosives will be loaded by deck charging. The stemming length is proposed to be one third of the whole depth. The ratio of high explosive to ANFO has been kept at 1:4. The explosive column will be blasted under

V type blasting pattern initiated by detonator & safety fuse or detonating fuse.

3.8.0 Machineries to be used

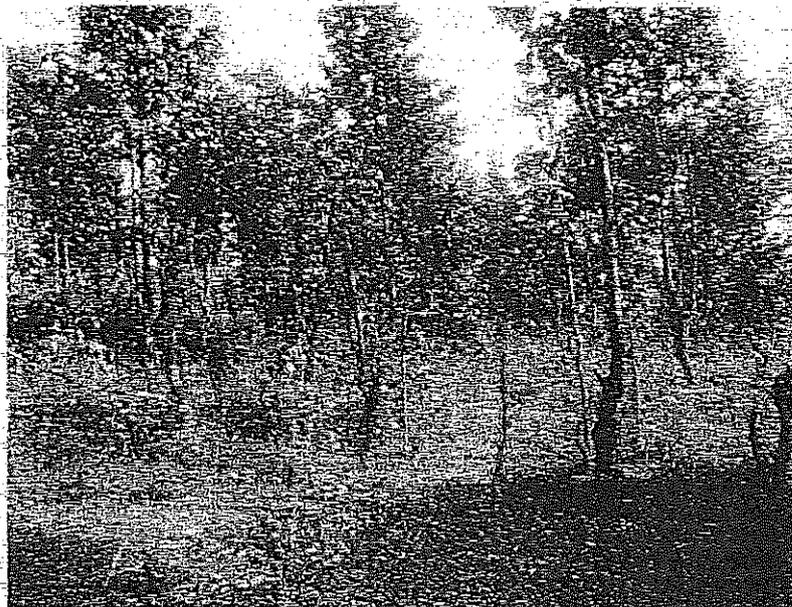
The following machineries are proposed to be used in the mining process:

Sl. No.	Machines	Size / Capacity	Numbers
1.	Dumper	35t	10
2.	Tipper	10t	9
3.	Exploratory drill	76mm dia	1
4.	Shot hole drill (Jack hammer)	32mm dia	2
5.	Compressor	3.39 cu.m/min	1
6.	Compressor	450 cfm	4
7.	Bull Dozer	D 155	1
8.	Bull Dozer	D 80	1
9.	Water Tanker	10 Kl	1
10.	Generator		1
11.	Diesel Tanker		1
12.	Jeep	50 Hp	2
13.	Ambulance	20 Hp	1



CHAPTER - IV ANTICIPATED THREATS TO WILDLIFE AND ITS HABITAT

- 4.0. An ore production target of 76,000 mt/shift and ancillary activities associated with the same shall certainly create a huge impact on the area. This in turn shall adversely impact the wildlife and its habitat of this originally forested area. Of course the mine is being worked since 1973 in 32 quarries and has already impacted the ecology of the area to a great extent. This will continue further in the extended lease period. Attempt has been made in the following paragraphs of this chapter to assess such threats due to various activities both within the lease and outside, so that remedial measures can be suggested for minimizing those impacts in order to make it conducive for wildlife to thrive despite the mining process.
- 4.1. Anticipated threats within the lease area: Though R.F. area is about 57.5 Ha other type of forest land also forms a part of the lease area. Besides the non-forest land also support some vegetation conducive to inhabitation of smaller wild animals. Hence it is necessary to save as much forest as possible within the lease and create least disturbance due to other activities. The following are perceived threats within the lease.
- 4.1.1 Loss of habitat: Opening up quarries, making of roads, illicit removal of timber and fuel wood and enhancement of other activities can deplete the forest, which forms habitat of most wild animals in the area. Unless suitable remedial measures are taken to prevent such loss, particularly increase of edible species of plants, the loss shall be irreparable causing stress to the wildlife living there.



- 4.1.2 **Forest fire:** Forest fire is a menace particularly in the tropical forest, where almost every patch of forest gets burnt several times during dry season, mostly due to anthropogenic activities like collection of NTFP (mohwa flower and kendu leaf etc). This spreads into the nearby forest and kills young vegetation, chars the ground, kills the ground dwelling animals and their young mass and burns their nests and eggs. It also desiccates the ground and dries up the hill streams.
- 4.1.3 **Soil and moisture loss:** As the slopes become denuded, gets dug up, roads and benches are made, any rain induces the erosion of soil and flow of rain water ladden with silt. Thus the edible vegetation is affected, water is not retained and water bodies down in the valley are silted up. The animals suffer due to want of fodder, water and cover.
- 4.1.4 **Fall of animals:** The mining pits are quite steep. While moving on the upper riches, they may accidentally topple over this slope. There is possibility of inadvertent fall while fighting among themselves or being chased by a predator. This results in serious injury or death.

- 4.1.5 **Accidental death due to vehicle accidents:** As earth movers and machines keep moving in the mine area, particularly during night, there is possibility of running over animals crossing their path. This can also happen with other machines used in the area.
- 4.1.6 **Noise:** Blasting, movement of vehicles, operation of other machineries, drilling operation, loading and even shouting and use of radio etc by the workforce creates a lot of noise. This disturbs the tranquil environment of wildlife habitat, particularly at night.
- 4.1.7 **Dust:** Dust is a common pollutant in a mining area more so in an iron ore mine. This is generated due to movement of vehicles, blowing of dust from the ore while being carried, blasting and drilling, loading, dumping etc. This is more acute in day movements and covers the leaf surfaces and creates respiratory problem for wild animals.
- 4.1.8 **Lighting:** Quarry lighting and head lights of vehicles operating within the mines, illuminate the small depleted forest patches, thereby disturbing the animals at night. They can not get proper cover nor can sleep well. Hence they become prone to diseases.
- 4.1.9 **Garbage:** Besides the over burden removal from the quarries, there are lot of waste material both solid and liquid are generated by the workforce, site office and mess etc. They are both bio-degradable and non-degradable. They may cover or contaminate the ground and prevent regeneration, pollute soil and get ingested by the wild animals. Animals are known to suffer very badly and die when they swallow such garbage.
- 4.2 **Perceived adverse impact in the Zone of Influence:** These impacts are not only confined to the mine area. The neighbouring area also suffers due to mining and other ancillary activities. Such impacts have been identified in the following paragraphs in order to look for measures that can

minimize such adverse impact. Of course all neighbouring mines shall impact this area and it will be difficult to isolate impact of any particular mine.

- 4.2.1 **Loss of forest cover:** Lots of forest area which form the habitat of wildlife can be lost due to opening of roads, human habitation, site office, mess etc. The wild animals shall suffer heavily due to loss of cover. If it is fragmented to very small patches, they shall serve no useful purpose for the wildlife. Hence patches of forests wherever available should be left intact, if not essentially required for mining operation.
- 4.2.2 **Forest fire:** Like the forest patches within the mine the surrounding forests are also prone to forest fire, which is often caused due to negligence of NTFP collectors, smokers and passers by using lighted torches. It has similar effect on the wildlife and its habit as indicated for the mining area. This area is likely to be more susceptible as there are number of villages, whose people freely enter the forest patches for different purposes.
- 4.2.3 **Soil & moisture loss:** Operation of different mines in the Zol and transportation of minerals, subjects the hilly tracts to erosion. Similarly forest land laid bare due to mining roads, paths, blasting, dumping also causes excessive soil loss. The rain water also flows down to the valleys without due to ant of any soil cover. Thus there is no moisture retention and recharging of ground water. This results in scarcity of water, food and cover for the wild animals of the area.
- 4.2.4 **Increased dependence of people on forest:** As seen from Chapter-I only a fraction of population work in the mines, many people appear to be dependant on subsistence agriculture and exploitation of forest products. This will degrade the forests further, as lot of forest shall be lost due to mining. Hence alternate avocation should be provided to them so that their dependence on forest is minimized.

4.2.5 Man animal conflict: Due to loss of vegetation due to different mines, the wild animals, particularly elephants, who do usually visit the area may deprede the crops and houses storing grains more often. This may antagonize people against animals, as loss of crop, houses and even human life may compel people to take retaliatory measures.

4.2.6 Grazing: Grazing of cattle may become more pronounced, resulting in loss of edible biomass so much required by the herbivores to survive and for cover. This may even result in transmission of communicable diseases from the domestic livestock to wild animals.



CHAPTER - V **CONSERVATION PLAN FOR** **MANAGING WILDLIFE**

5.0.0. This lease area covers 365.026 Ha, out of which 96.909 Ha is forest land. The wildlife and its habitat within the lease hold area are being adversely affected to be due to the mining process and its ancillary activities that is taking place since 1953. This is likely to continue further and affect more areas during future mining operation. Hence suitable mitigation measures are needed to be taken within the lease hold area, so that the wild animals presently found within the lease and others who may migrate from other adjoining area can live there with minimum possible disturbance despite the mining activity.

5.0.1. As the Regional Wildlife Management Plan for Keonjhar and Bonai Forest Division is in operation in the area and M/s.R.P.Sao shall contribute their share of financial support for the plan, the same shall take care of the general perceived threats to the surrounding area. Hence this plan aims to be more site specific in nature

5.1.0 **Measures to be taken within the mining lease:**

Perceiving the threats which have been enumerated in Chapter IV, number of measures has been proposed in the paragraphs below, so that the wild animals are not totally deprived of their habitat that can provide them their food, water and cover requirement besides safety. The green belts, safety belts, area not to be mined during the lease period, and those, which shall be opened up in the later part of the plan period and beyond, shall provide shelter to the wild animals for the time being. Protection of these patches and preventing other negative

factors may help the wild animal status to stabilize or even improve. The mitigation measures proposed are:

5.1.1 Forest protection:

The local people and the work force, with tribal majority need forest materials for cooking food, heating themselves, repairing their houses, for agricultural equipments and ethnic medicines and food. The forest patches, which are already depleted, shall be severely affected if they continue the same practice. Hence the protection of forest, which is wildlife habitat, is of utmost importance, if wild animals are to survive. Not only the people need sensitization, there should be proper enforcement machinery to prevent such illicit removal. Two permanent 'Bana Sahayaks' (preferably retired F.G. or ex-Army Jawan) can take care of such offences and take the help of Forest Department to prevent the same, as it will continue to be forest area. The green belt, safety zone, and patches those shall not be required to be worked during the plan period and non-mineralized zones should be given full protection.

It will also be necessary to improve the forest density with a good mixture of edible species of plants. For this purpose the blanks should be planted up, with 2-year old seedlings in 0.5m³ pits, filled with borrowed soil, bio-fertilizers and bio-pesticides. Instead of buying seedlings an in-house nursery should be developed within the mine for ensuring better quality seedlings, required species mix, prevention of damage due to long distance transportation besides economy. An effective area of 100 Ha shall be planted up during the plan period.

While all those staying within the lease should be provided with L.P.G. or coal, the work force should be provided with the same

at a subsidized rate. They should also be made aware of the damage they may cause due to over dependence on forest. As this is a large mine, Guali Iron Ore Mines can hire services of a forestry graduate/retired forest officer for initial 5 years for looking after forest and habitat protection, gap filling and reclamation of worked out mines and O.B. dumps. To give required thrust to this work, it will be proper to create a separate wing under his charge to be called 'Forest & Habitat Conservation Wing' like different other wings of the mining operation.

5.1.2. **Forest fire:**

Forest fire is quite common in most tropical forests. This area is no exception to this. This may further aggravate after the forests are depleted and subjected to severe anthropogenic pressure due to mining related activities. This may not only destroy the ground vegetation, it will be disastrous for small wild animals, birds, their young ones, eggs and nests. Hence, 4 persons from the locality shall be engaged for 5 months every year as fire watchers during fire season. Ten meters wide fire lines with a total length of 10 Kms may be cleared and maintained from the start of fire season. The fire watchers should be trained to handle fire and should be provided with simple fire fighting equipments. They may be provided help by the mining work force to handle fire when they require such help.

5.1.3. **Soil conservation:**

As the mining operation is likely to make lots of land barren, without any ground cover, they shall be subjected to severe erosion, if not tackled properly and timely. All hill streams need be treated by providing vegetative, rubble or masonry check

dams starting from their source up on the hill. This shall prevent soil loss and help store water, which shall be used particularly by small animals during the pinch period, improve vegetation and recharge ground water. Exposed sloping surfaces can be treated with staggered contour trenches of 5m x 0.5m x 0.5m, 5m apart and planting may be taken up in the trenches. Even the O.B. dumps and pit slopes should be stabilized with grass planting or sowing embedded in cow dung/soil pellets before ultimate reclamation. All species planted should be indigenous and belonging to the locality. Erosion resisting plants should be carefully chosen for the purpose. The pits and dumps should be provided with garland drain to lead to a siltation (slime) pond so that the soil loss can be prevented. Coir mats (without synthetic fiber) can also be used for stabilization of dump and pit slopes before planting.



5.1.4. Moisture conservation:

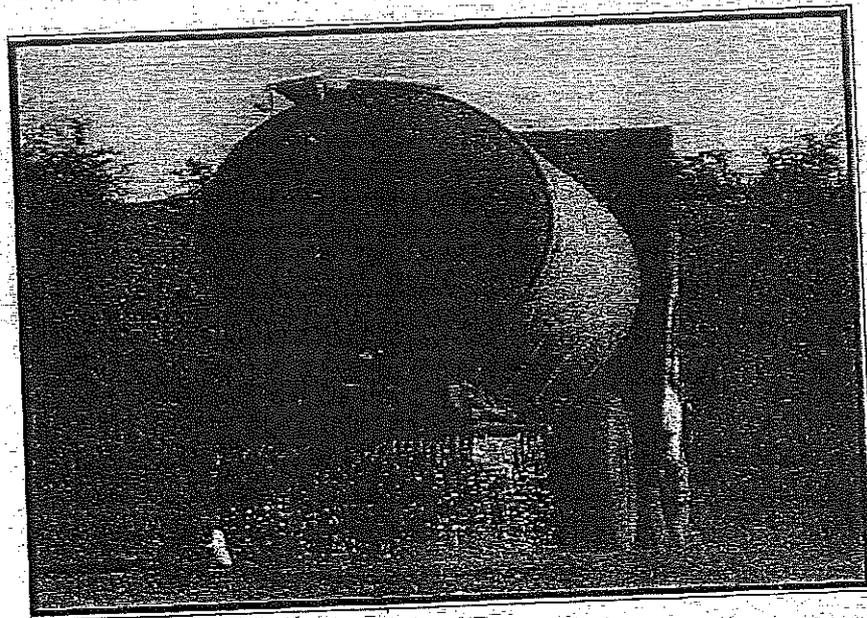
Due to want of vegetative cover, rain water shall flow down with high velocity and no moisture shall be retained to support vegetation or to recharge ground water. The soil conservation measures enumerated in the previous paragraph shall also help retention of moisture in the area. Any structure constructed within the lease should have arrangement for rain water harvesting or percolation to the sub soil layer.

5.1.5. Game tank:

As the wild animals are in need of water in the pinch period 2 game tanks of 50mx40m and 3m in depth may be dug up in the extreme south of the mine near village Tondo and in the valley. Their surrounding should be thickly vegetated with the existing vegetation and planting for gap filling.

5.1.6. Dust:

Movement of vehicles, blasting, -drilling, mining and transportation of ore without cover and other related activities generate lot of dust in the mining area. This causes problem for both flora and fauna. This should be minimized by sprinkling of water on haul roads, mine benches used for earthmover movements at least twice a day on non rainy days. The ore should be cleaned of dust through water jet or covering the same with tarpaulin during transportation. The road length should be kept at the minimum through proper planning without exposing large tracts to vehicular movement. Besides this wet drilling process and confining blasting to fixed time once a day can eliminate dust due to drilling.



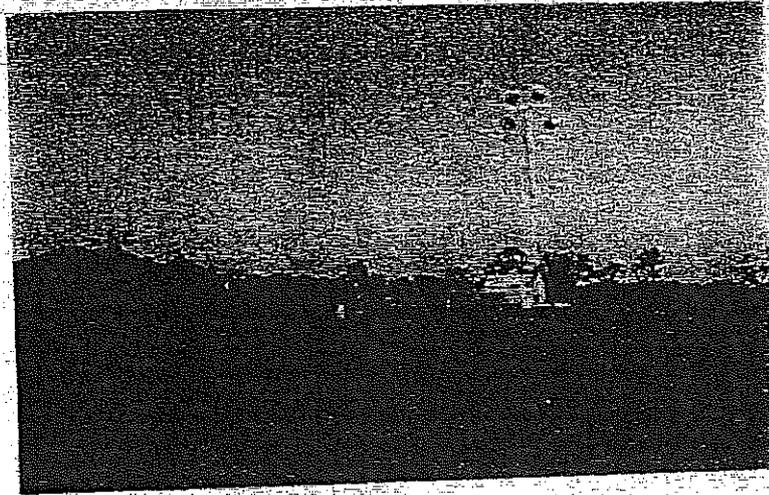
5.1.7. Noise:

Vehicular movement, use of radios etc. by the work force, working of machineries and blasting causes lot of noise in this forested area and scares away wild animals and they desert the area in panic and sometimes get killed in the process. While all vehicles and machineries should be maintained properly, the blasting should be muffled and synchronized with other neighboring mines, preferably at a fixed time slot in the A.N. Wet drilling is also quite helpful. The work force should also be sensitized not to create too much noise during their stay within the mine area.

As blasting is inescapable, muffled blasting should be practiced at a fixed time of the day preferably in the after-noon synchronizing with the time of blasting in the adjoining mines. This will reduce noise pollution to some extent and relative tranquility shall be maintained in other parts of the day and night. There are some guidelines issued by the Chief Wildlife Warden. The same should be scrupulously followed. It is pointed out by many mine owners that the time fixed by the Chief Wildlife Warden and that the Director General of Mines Safety are different and hence it will be difficult to follow both of them. It should be rationalized. It is suggested that this should be taken up preferably during the change of shift (lunch hour) in the afternoon. This may be discussed in the appropriate forum and consensus decision may be taken and suitable guidelines may be issued by the Chief Wildlife Warden in order to cause least possible disturbance to the wildlife of the region while causing minimum dislocation of mining operation.

5.1.8. Lighting:

Lighting both fixed as well as moving is detrimental to wildlife. Hence, as far as practicable, night movement within the lease should be avoided or minimized. When, such movement takes place, the vehicles should use dipper on their headlights. All fixed lights should also be shaded and focused towards the quarry pit, so that light does not illuminate the forest patches outside the quarry that shelters the wild animals.



5.1.9. **Rain-water harvesting:**

In order to prevent flow of water from different structures and mine slopes etc thereby creating soil erosion, siltation and no recharging of ground water, arrangement of harvesting the rain water should be made for using during pinch period for sprinkling, nursery, washing etc. or allow it to recharge the ground water of the locality.

5.1.10. **Poaching:**

Most tribes are fond of shikar with bows and arrows, catapults, snares, dogs or fire. Such practice should be prevented in the interest of wildlife with the help of the Forest Department. The Bana Sahayaks and fire watchers should be able to prevent this. They may take help from other work force and Forest Department when required.

5.1.11. **Garbage:**

Though it is a mechanized mine, a large work force including transport staff shall be deployed. They shall carry their food stuff or cook lunch/snacks. There is a staff canteen in operation within this mine. All this shall create bio-degradable and non-degradable solid wastes and liquid wastes. They shall be detrimental to wild animal health and cover the ground and prevent regeneration. The principle of 'reduce, recycle and re-use' can be adopted. For this the garbage should be collected, segregated and taken outside the lease for appropriate disposal. The bio-degradable material can be subjected to vermi-composting for use in nurseries and plantations while non degradable ones shall be recycled. The liquid wastes should not be allowed either to contaminate the soil or flow down the stream to pollute the water bodies. Instead it should be treated

for reuse for cleaning, nursery, watering etc. or for ground water recharging.

5.1.12. Prevention of fall of animals:

If the slope is unprotected, the animals may fall there and injure or kill themselves as the mine pits shall be quite steep. This can happen when animal roams at night or fall inadvertently due to infighting or when chased by predators. Hence a five strand photo-voltaic fence may be provided on the upper slope, after a 7.5m wide vegetation belt, to prevent such fall and consequent casualty.

5.1.13. Straying of wild animals:

Due to forest fire, blasting, chasing by dogs or other predators or other disturbance in or in the surrounding areas, wild animals may get scared and stray into the active mines. They should not be chased or injured by the mining staff or workmen. They should be sensitized to carefully handle them and drive them back to their habitat with caution. In case of difficulty, the Forest Department may be informed and supported for capture, treatment and release. For this awareness should be created regarding wildlife conservation among the work force.

5.1.14. Prevention of grazing:

The cattle grazing is a menace for the wild animals and they should not be allowed to forage within the forest patches, as they shall not only deplete the vegetation, much needed by wild herbivores, they may also bring in epidemics with them to be transmitted to the wild animals of the area. The people of the area are not used to stall feeding of live stock. If the breed is upgraded and they become more productive, they can start stall

feeding as it will be quite remunerative. If biogas is produced by those having large number of stall-fed animals, it will also help reduce their dependence on forest for fuel.

5.1.15. Awareness promotion:

For implementing conservation measures it is essential for the senior officers of the mine and the workforce to be sensitized regarding the values of nature and wildlife. Hence awareness should be promoted among them for the purpose. Such awareness can be generated among the workforce and their families through celebration of different conservation related functions, lectures, audio-visual aids, brochures and posters, visits to conservation sites like sanctuaries and conservation related competitions like photography, painting, essay, debate and quiz etc.

5.2.0. Measures in the surrounding area:

The operation shall not only have adverse impact on the lease area, it shall also have some negative impact on its immediate surrounding. Measures are also required to be taken to minimize the same. Of course it can not be ensured that there shall be no impact outside the 10 km. zone of impact. However this plan does not intend to go beyond this zone. The regional wildlife management plan and similar plans for other leases shall take appropriate measures to minimize them. The suggested measures are:

5.2.1. Forest protection:

As the forest patches are likely to be threatened due to various causes and anthropogenic pressures generated due to mining, they are not only required to be protected as good animal habitats, they should be improved further. As there are only 3

V.S.S. in the Range and there is hardly any usufruct that can be shared with them without depleting the already depleted forest patches further, other alternatives should be adopted. For this purpose, it is suggested that a similar body to be called 'Gramya Bana Samiti (GBS)' can be formed in all the affected villages and duly recognized by the Forest Department and the lessees concerned. They can be provided incentive for not only protecting the forest but also for preventing forest fire, poaching and depredation. They should be engaged in implementation of income generating activities, farm forestry and maintenance of anti-depredation drives. The usufruct from farm forestry, avenue and institutional planting and materials from intermediate harvest can be shared by them to be equally distributed among all members. They can provide protection to the forest patches close to their village. Forest Department help should also be forthcoming for the purpose. Financial incentives may be provided for such services. An effective area of 100 Ha shall be planted up with the funds provided by this lease during the plan period. Only indigenous species should be planted in suitable mix in the same manner prescribed for the lease area with due emphasis of fodder and edible fruit bearing species. Two (two) Bana Sahayakas can be engaged to augment forest staff.

5.2.2. Prevention of forest fire:

Forest fire, which is rather common in this tract during summer months, causes lot of harm both to the habitat and the wild animals dependant on the same. This is also needed to be prevented through the V.S.S./GBS who should be provided with proper incentive. They can take help of the Forest Department for this. The lessee can provide services of 2 additional fire

watchers to the Forest Department for effectiveness of the effort. Simple fire fighting tools like bill hooks, spades, buckets and brooms etc should be supplied to them to control forest fire. The fire fighting machines/equipments of the mine should be freely available for the purpose.

5.2.3. Immunization of livestock:

The domestic live-stock that grazes in the forest area shall be immunized against communicable disease in order to prevent transmission of diseases to the wild animals.

5.2.4. Poaching:

As *shikar* is likely to go up, with increase in population and improvement in economy, this need be prevented in order to improve the status of wildlife. For this purpose the local people should be sensitized and V.S.S./GBS should collaborate with the Forest Department to prevent poaching. Intelligence regarding habitual poachers may be passed on to the Forest Department.

5.2.5. Income generating activities (Eco-development):

Despite increase in economic activity due to mining, some unemployment among the old, women, weak and physically challenged shall continue to exist. Those people are likely to depend on the forest for livelihood unless they are provided with alternate employment. They shall be responsible to deplete the forest. They should be trained and provided support for avocations like diary, poultry, vegetable growing, mushroom culture, bee keeping, tassar growing, tailoring, embroidery, bicycle/2-3-wheeler repairs, electrification, radio/T.V. repairs, handicrafts, incense stick making, papad making and nursery raising etc. All these products shall have ready market and SHGs can help the people in this. After initial support, they can be linked with financial institutions to get necessary financial

support. The local GBS can be associated with the implementation of these activities due to their intimate knowledge about the local conditions and capability of each individual.

5.2.6. Man-animal conflict:

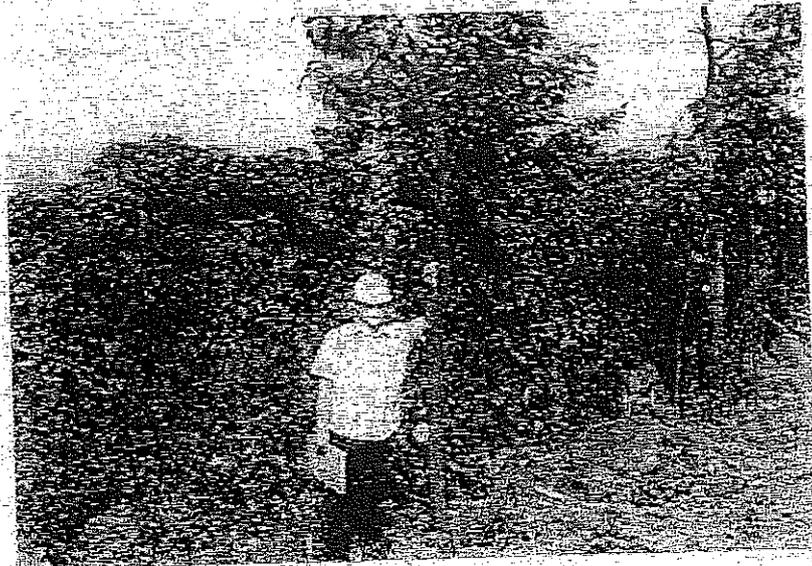
There is possibility of occasional conflict with wild animals, straying out of the forest for raiding crop fields. This may result also in house breaking and human casualties and death and injury of wild animals. To prevent this, following steps may be taken.

5.2.6.1 Corpus fund:

A corpus fund of Rs.3.00 lakh may be placed with the DFO, Keonjhar to pay immediate compassionate grant to victims, which can be replenished when funds from the government is received.

5.2.6.3 Photo-voltaic fencing:

A 10-Km long five- strand photo-voltaic fencing may be erected on forest fringes, most vulnerable, to prevent their entry in to the crop fields or hutments storing grains. The GBS may be entrusted with its protection and maintenance.



5.2.6.4 Lighting (Solar/electric):

As most raids do take place in dark nights taking advantage of complete darkness, one or two solar/electric street lights may be placed at vantage points for illuminating the area, to see approach of animals, particularly elephants and take advance steps to drive them away before they enter the crop fields. This also scares them and they desist from raiding.

5.2.6.5 Crop manipulation:

Most animals dislike certain crops growing at certain time of the year, like non-edible crops like tobacco, chili, some medicinal plants, sunflower etc., they can be raised close to the village and on forest fringes to distract wild animals from their favourite ones.

5.2.6.6 Storage bins:

As most houses are *kuchcha*, the elephant break houses to get the gains since they can be easily be located due to their strong smell. This can be prevented by use of metal bins where the grains, particularly boiled paddy, mohwa flower etc having strong odor are not safe in flimsy hutments.

5.2.6.7 Driving away animals:

Despite all these efforts some depredation shall continue to take place. To prevent this local people, particularly V.S.S., where such committee is not there, GBS should be trained and equipped with basic equipments like loud hailers, flairs, spot lights and drums etc. If they do not respond to these traditional measures, high frequency beepers with frequency that shall be intolerable for the elephants and hand held hooters can be put to use. High frequency beepers have been found to be effective in Malaysia and South India. Similarly other methods like use

of recorded tiger-roar can be effectively used. For this purpose 10 sets of each may be procured. Adoption of these measures can prevent depredation till anti-depredation squad of Forest Department arrive there. However, efficient tele-communication facility should be available for transmission of information to the Divisional or Range office or directly to the squad.

5.2.6.8. Habitat improvement:

The blanks in the forest patches can be planted up with edible species and nallas check dammed and maintained for improving the wildlife habitat conditions. There is no natural salt lick reported in the area. Artificial ones (2 Nos) should be created and maintained at suitable places as decided by the Forest Department. It should be ensured that these spots are not used by poachers. For making drinking and bathing water available one game tank can be dug at a suitable place. These measures shall help wild animals to get their food, water, salt and cover requirement within the forest areas and they shall not be forced to stray in to the villages and get killed.

5.2.9. Awareness promotion:

The wild animals shall not be safe unless the local people are made aware regarding the need for conservation of wildlife and its habitat. Hence awareness shall be created among the people, particularly the young ones, through celebration of different conservation functions, lectures by conservationists, competitions, photography, film shows, brochures, posters, visit to different P.A's/Zoos/N.H. Museum etc.

5.3.1. **Plan period:**

This plan is valid for a period of 10 years after which it can undergo changes depending on the result of the implementation proposed in this plan and prevailing costs at that point of time.

5.4.1. **Monitoring mechanism:**

A committee under the chairmanship of the D.F.O., Keonjhar, with representatives of M/s. R.P. Sao., local V.A.S., local BDO, Ward Member/VSS/GBS Chair person of concerned villages and R.O. Baddil should be formed to review and monitor the implementation of the plan and suggest course correction, if required. The committee should sit at least twice every year and can co-opt any one else if needed with permission of the chairperson.

5.5.1 This plan should keep in mind the provisions in the EIA/EMP, mining plan, regional wildlife management plan, forest diversion order besides the Wildlife (protection) Act - 1972, Orissa Forest Act, 1972, Forest (conservation) Act, 1980, Environment Protection Act, 1986 and rules and executive instructions issued under them, while implementing this plan. The orders of different statutory authorities like State and Central Pollution Control Board, officials of forest department & MoEF should not be violated while implementing this plan.

5.6.1. **Prevention overlapping:**

Overlapping and duplication of activities listed under this plan with that provided for in other documents and activities carried out by other line departments or other bodies should be prevented through careful planning and frequent monitoring.

CHAPTER -VI

FINANCIAL FORECAST

6.0.0. Based on activities suggested in the Chapter-V broad financial estimate for activities within the lease hold area and in the adjoining forest etc. areas.

6.1.0 The following table indicates the cost estimate for measures to be taken inside & outside the project area within 10-years. The cost of these measures shall be deposited with the Forest Department. All the works under this scheme are to be executed by the Divisional Forest Officer, Keonjhar Division both within the project area and outside the project area i.e. in project impact area under the guidance of Conservator of Forests, Rourakela Circle.

Sl. No.	Item of work	Estimated cost (Rs. in Lakhs)
A	Activities to be taken up by the Divisional Forest Officer inside lease hold area.	
1	Fire protection including wages of fire watchers etc.	6.00
2	Photo voltaic (Solar fencing) to avoid straying of wild animals into mining area	7.00
3	Habitat improvement including salt lick/ soil conservation measures like check dams, rain water harvesting etc.	10.00
4	Filling blanks with suitable plantations	5.00
5	Public awareness about mining and wildlife protection	5.00
6	Game tank- 1no.	4.00
	Other unforeseen expenses	2.00
B	Activities to be taken by the Divisional Forest Officer outside the lease hold area within 10 Kms. radius of Buffer Zone.	
01	Protection of forest including support to the VSS/ boundary maintenance etc.	5.00
02	Fire protection for 10-years including wages of fire watchers	6.00
3	Purchase of vehicle & POL etc.	10.00
4	Creation of game tanks and renovation and maintenance of old game tanks, water bodies, wallowing grounds etc in interior forest areas.	25.00
5	Habitat improvement. Large scale plantation preferably with fodder, bamboo, fruit bearing species and development of grass land/ meadows including watch and ward for 5 years at least over 200 ha.	60.00
6	Distribution of seedlings to public in various villages.	20.00
7	Public awareness / Capacity Building	5.00
8	Protection/Anti-depredation squad with cost of equipments, incentives etc.	25.00

5.7.1. Total Cost:

The cost break up of items under this plan has been provided for in the next chapter and comes to **Rs.203.00 Lakhs**. For the activities within the lease **Rs.110.00 Lakhs** has been estimated. This should be taken up by the lessee within the lease area. There is further provision of **Rs.93.00 Lakhs** for the surrounding area (Zol). This should be deposited with the D.F.O., Keonjhar to take up the activities indicated for the area.

9	Corpus fund for paying compassionate grant and wildlife depredation control measures at the time of exigencies of man wild animal conflict	15.00
10	Solar fencing its maintenance	10.00
11	Immunization of livestock	2.00
12	Development of communication network / GIS based maps Satellite maps on GIS domain should be procured every year to know the changing profile of the project area/ project impact area in both dry season and wet season for 10 years preferably using the GIS lab of PCCF(WL), Orissa.	10.00
13	Pollution control and monitoring mechanism to be developed in consultation with State Pollution Control Board	10.00
14	Development of Infrastructure like VHF sets/ towers, Watch towers, communication equipments like telephones/ computers, peripherals, environmental campaign equipments, repair of staff quarters and maintenance	15.00
15	Eco-Development/ Income generating activities	15.00
16	Unforeseen & miscellaneous	5.00
	Total	277.00

(Rupees Two crores and seventy seven lakhs) only.

Approved by PCCF(WL) & CWLW, Orissa.


 Conservator of Forests (WL)
 Conservator of Forests
 & the Chief Wildlife Warden, Orissa
 Bhubaneswar

REFERENCES

- Wildlife Wealth of Orissa (Govt. Publication).
- Working Plan of Keonjhar Forest Division.
- District Statistical Hand Book of Keonjhar District.
- Human Animal Conflict by Sri C.K.Sar & Dr Lahidi Choudhury of Bonai Forest Division.
- Environmental Impact Assessment & Environment Management Plan for the mine.
- District Gazetteer of Keonjhar District.
- National Wildlife Action Plan -Govt. of India.
- Wildlife (Protection) Act, 1972.
- Forest (Conservation) Act, 1980 amended up to 2004.
- Orissa (Forest) Act, 1972.
- Mammals of India by S.H. Prater
- Indian Birds by Salim Ali
- Reptiles of India by J. C. Daniel.
- Flora of Orissa, Saxena & Brahmam (O.F.D.C.Ltd).
- Right of Passage-Elephant Corridors of India-Wildlife Trust of India

c) Provide welfare amenities to workers working in the mine;

d) Use pollution control devices, as approved by the Central Government or the State Government as the same may be;

e) Take measures for protection of environment, planting of trees and the like, as determined by the State Government and

f) Carry out mining in accordance with the provisions of law in force;

The transferee Sri R.P. Sao has given a written undertaking to observe these conditions at (a) to (f) above which should be recorded in the transfer deed.

3) The transfer deed may be executed between the transferor and the proposed transferee in the presence of the Collector, Keonjhar only after getting clearance of all arrears dues of Government in respect of the lease and complying with the conditions mentioned above.

BY ORDER OF THE GOVERNOR

P. L. NAYAK

ADJUTANT SECRETARY TO GOVERNMENT

Memo No. 12448 /MC, Bhubaneswar, the 22-10-1982

Copy with a copy of the Model form of transfer be forwarded to the Collector, Keonjhar for information and necessary action.

He is requested to see that arrears dues outstanding against the lessee in respect of the mine are cleared up before any transfer of the lease.

S&K

Adl. Secretary to Government

Memo No. 12429 /MC, Bhubaneswar, the 22-10-82

Copy with a copy of the Model form of transfer be forwarded to P. N. Acharya, At/P.O. Barkil, Keonjhar/ Sri Ramesh Prasad Sao, At/P.O. Chainasa, Distt. Singhbhum (Bihar) for information and necessary action.

Adl. Secretary to Government

Memo No. 12448 /MC, Bhubaneswar, the 22-10-1982

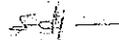
Copy be forwarded to Director, Mining and Geology, Orissa, Bhubaneswar/ Sr. Mining Officer, Jada for information and necessary action.

Adl. Secretary to Government

Encl:-

6. Electric fencing raised by the User Agency around mining trenches shall be maintained by them throughout the life of mine.
7. Trees shall be felled only when it becomes necessary and under strict supervision of State Forest Department.
8. The user agency shall protect the top soil at the project cost.
9. Concurrent Reclamation plan shall be executed by the user agency from the very first year and an annual report shall be sent to the Nodal Officer and the Regional CCF, Bhubaneswar. If it is found from the annual report that the annual programme mentioned in Concurrent Reclamation Plan is not being adhered to by the user agency, the mining activities shall remain suspended till such time the annual programme is completed for that year.
10. No labour camps shall be established on the forest land.
11. Sufficient firewood shall be provided by the User Agency to the labourers at the project cost after purchase from the State Forest Department/Forest Development Corporation.
12. Mining shall be done as per the approved mining plan.
13. The User Agency shall ensure that there is no damage to the available wildlife.
14. The forest land shall not be used for any purpose other than that specified in the proposal.
15. The lease period shall be co-terminus with the current lease granted under MMRD Act, 1957.
16. Any other condition that the State Government or the Chief Conservator of Forests (Central), Regional Office, Bhubaneswar may impose from time to time in the interest of conservation, protection and development of forests shall also be applicable.

Yours faithfully,



(ANURAG BAJPAI)
Asstt. Inspector General of Forests

Copy to:

1. The Principal Chief Conservator of Forests, Government of Orissa, Bhubaneswar.
2. The Chief Conservator of Forests (Central), Regional Office (EZ), Bhubaneswar.
3. The Nodal Officer, Forest Department, Government of Orissa, Bhubaneswar.
4. RO (Hqs), New Delhi.
5. User Agency.
6. Monitoring Cell of FC Division.
7. Guarded file.



(ANURAG BAJPAI)
Asstt. Inspector General of Forests

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ANNEXURE-IV

Consent Letter of State Pollution Control Board, Orissa



Handwritten: 12/09/2006
FAX : 2562827/256096
Tel. : 2564033/2563924
EPABX : 2561909/256264
E-mail : Parbech@sancharnet.in
website : www.ospcbboard.or

STATE POLLUTION CONTROL BOARD, ORISSA
(DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ORISSA)
Paribosh Bhawan, A/116, Nilakanthanagar, Unit - VIII,
Bhubaneswar - 751 012, INDIA

No. _____
H.D.L.P.H.132

Date _____

To,
The Secretary,
Ministry of Environment & Forests,
Govt. of India, CCO Complex,
Lodi Road, New Delhi
The Principal Secretary,
Forest & Environment Department,
Government of Orissa, Bhubaneswar

BY RECE PCBI

Sub: Public Hearing in respect of the Environmental Assessment for M/s. Guall Iron Ore Mines for enhancement of production up to 18 CTPA over an area of 365.026 hecter at Guall in the district of Keonjhar.

Reference is made to the above and the fact that the Public Hearing of the above project was held on 17.09.2006 at Guall, Dist. Keonjhar, Orissa. The Public Hearing was held at 11.00 AM in accordance with the Ministry of Environment & Forests, New Delhi, dated 17.09.2005.

The Public Hearing was held in accordance with the Ministry of Environment & Forests, New Delhi, dated 17.09.2005. The Public Hearing was held at 11.00 AM in accordance with the Ministry of Environment & Forests, New Delhi, dated 17.09.2005.

The Public Hearing was held in accordance with the Ministry of Environment & Forests, New Delhi, dated 17.09.2005. The Public Hearing was held at 11.00 AM in accordance with the Ministry of Environment & Forests, New Delhi, dated 17.09.2005.

- 1. Copies of the Report & Recommendations
- 2. Composition of the Public Hearing Panel
- 3. Attendance sheet of the members of the Public Hearing Panel
- 4. List of persons who participated in the Public Hearing

The above documents are being forwarded to the Board for the Public Hearing and for the necessary action. The Board is requested to endorse the views of the Public Hearing Panel in the proceedings of the Public Hearing.

Encl: As above

Memo No. 99735 / 47206
Dated: 12.09.2006
Keonjhar

Encl: As above

SECRETARY
SECRETARY

ANNEXURE - V

SOCIO-ECONOMIC DEMOGRAPHIC PROFILE

Sl No	Name of the Village	No. of Households	Male	Female	Children	Total Population
1	Tada	629	1247	1072	563	2882
2	Jhirpani	169	428	404	164	996
3	Kalta	553	1188	922	390	2500
4	Nandikasira	70	133	129	48	310
5	Rengalbeda	115	248	243	121	612
6	Kasira	136	336	356	117	809
7	Bhanjapali	113	263	254	134	651
8	Sequsahi	45	1061	124	48	1233
9	Bindipur	84	191	188	58	437
10	Saīndipur	100	226	226	97	549
11	Kalmanga	244	554	544	213	1311
12	Teheret	100	232	255	120	607
13	Koida	874	1938	1661	731	4330
14	Harischandrapur	205	452	410	166	1028
15	Kusumdihi	140	302	314	165	781
16	Kamanda	165	473	446	166	1085
17	Kuta	85	250	266	107	623
18	Dengula	162	497	444	117	1058
19	Tentulidihi	40	111	104	52	267
20	Nuagaon	58	169	180	56	405
21	Kadadiha	118	282	316	107	705
	Total	4205	10581	8858	3740	23179

SOCIO-ECONOMIC DEMOGRAPHIC PROFILE OF BARBIL BLOCK

Sl No	Name of the Village	No. of Households	Male	Female	Children	Total Population
1	Bhuranraida	135	337	339	151	827
2	Kundurapani	64	143	148	78	369
3	Camp of TISCO	0	0	0	0	0
4	Ragudihi	74	173	180	63	416
5	Laidapada	77	230	189	126	545
6	Bhuyanrudakla	51	123	130	35	288
7	Kouarudakla	56	163	152	56	371
8	Topadihi	62	165	157	63	385
9	Guali	120	357	305	111	773
10	Nuagaon	112	272	262	79	603
11	Gandhalpada	69	196	186	100	482
12	Barapada	72	196	190	85	471
13	Kateshi	85	188	204	97	489
14	Chromalada	136	317	285	156	758
	Total	1113	2860	2717	1200	6777

SOCIO-ECONOMIC DEMOGRAPHIC PROFILE OF JODA BLOCK

Sl No	Name of the Village	No. of Households	Male	Female	Children	Total Population
1	Tilapur	26	42	39	5	86
2	Chhatabar	91	208	154	47	409
3	Khanda	27	64	54	20	138
4	Khandabandha	222	497	456	221	1174
	Total	366	811	703	293	1807

ANNEXURE-VI

LIST OF VAN SURAKHYA SAMITI OF BARBIL RANGE

ANNEXURE-V

LIST OF V.S.S. OF CHAMPUA AND BARBIL RANGES

Sl. No.	Name of the Section	Name of the V.S.S.	Name of the Taluk	Name of the Block	Name of the Forest District	Area (in Ha.) assigned to VSS	Whether Exclusive Committee formed	Whether Micro plan prepared	Whether Forest Dept. has been notified	Whether Micro plan prepared
1	Kanjipani B.J.P.	Gonaska	Taluk	Kadajisidi	Konjhar D.P.F.	97	Yes	Yes	Yes	Yes
2	Kanjipani B.J.P.	Rayakumunda	Konjhar	Bayabandara	Konjhar D.P.F.	80	No	No	No	No
3	Kanjipani B.J.P.	Mamelaipesi	Konjhar	Sinduria	Konjhar P.R.F.	80	No	No	No	No
4	Suakati B.J.P.	Danapani (Pahunbanisahi)	Konjhar	Pandara	Konjhar P.R.F.	80	No	No	No	No
5	Suakati B.J.P.	Talchandi	Konjhar	Bayabandara	Konjhar P.R.F.	40	No	No	No	No
6	Suakati B.J.P.	Talchandi	Taluk	Kanjipani	Konjhar P.R.F.	50	No	No	No	No
7	Suakati B.J.P.	Talchandi	Konjhar	Talchandi	Konjhar P.R.F.	100	No	No	No	No
8	Suakati B.J.P.	Talchandi	Konjhar	Suakati	Konjhar P.R.F.	45	No	No	No	No
9	Suakati B.J.P.	Talchandi	Konjhar	Kanjipani	Konjhar P.R.F.	100	No	No	No	No
10	Suakati B.J.P.	Talchandi	Konjhar	Kanjipani	Konjhar P.R.F.	100	No	No	No	No
11	Kanjipani B.J.P.	Gonaska	Taluk	Gonaska	Konjhar K.F.	100	No	No	No	No
12	Kanjipani B.J.P.	Bayabandara	Konjhar	Bayabandara	Konjhar P.F.	100	No	No	No	No
13	Suakati B.J.P.	Baragaria	Taluk	Kadira	Konjhar P.F.	100	No	No	No	No
14	Kanjipani B.J.P.	Supaganpa	Taluk	Supaganpa	Konjhar P.F.	80	No	No	No	No
15	Suakati B.J.P.	Singpur	Taluk	Singpur	Konjhar K.F.	80	No	No	No	No
16	Suakati B.J.P.	Adhni	Taluk	Adhni	Konjhar K.F.	80	No	No	No	No
17	Suakati B.J.P.	Danle	Konjhar	Peral	Konjhar D.P.F.	80	No	No	No	No
18	Suakati B.J.P.	Khalekundi	Konjhar	Khalekundi	Konjhar D.P.F.	80	No	No	No	No
19	Kanjipani B.J.P.	Sikulepoda	Taluk	Sikulepoda	Konjhar K.F.	100	No	No	No	No
20	Kanjipani B.J.P.	Uper-Bakarandi	Taluk	Uper-Bakarandi	Konjhar K.F.	100	No	No	No	No
21	Kanjipani B.J.P.	Munina	Konjhar	Munina	Konjhar D.P.F.	100	No	No	No	No
22	Kanjipani B.J.P.	Uparalidha	Taluk	Uparalidha	Konjhar V.F.	100	No	No	No	No
23	Suakati B.J.P.	Saukrapsi	Konjhar	Saukrapsi	Konjhar V.F.	80	No	No	No	No
24	Suakati B.J.P.	Anuni	Konjhar	Anuni	Konjhar V.F.	100	No	No	No	No
25	Suakati B.J.P.	Uchumandi	Konjhar	Uchumandi	Konjhar V.F.	100	No	No	No	No
26	Suakati B.J.P.	Pandini	Konjhar	Pandini	Konjhar V.F.	100	No	No	No	No
27	Suakati B.J.P.	Padkasada	Taluk	Padkasada	Konjhar V.F.	100	No	No	No	No
28	Kanjipani B.J.P.	Nippo	Taluk	Nippo	Konjhar V.F.	100	No	No	No	No

2152.00

Total

ABSTRACT

Geographic Division	No. of Vessels	Area in Hektard								Total
		K.F.	P.R.F.	V.F.	D.P.F.	U.D.P.F.	Other Forest			
1	3	4	5	6	7	8	9	10	268.73	
2	3	59.04	-	-	-	-	-	-	59.04	
3	43	1622.00	-	50.00	-	-	55.00	-	948.00	

ANNEXURE-VII**List of Mines within the Zone of
Influence (ZOI)**

SL. NO.	NAME OF THE LEASE	LOCATION	AREA IN HA.
1.	Sri S.P. Sao	Guali	365.026
2.	Sri K.J.S. Ahluwalia	Nuagaon	767.284
3.	Sri K.C. Pradhan	Parulipada	12.60
4.	M/s. O.M.C. Ltd.	Parulipada	170.170
5.	Sri S.N. Pal	Katasahi	9.699
6.	Sri K.J.S. Ahluwalia	Kendudihi	40.47
7.	M/s. Rungta Sons (P) Ltd.	Katasahi	196.86
8.	Sri R.P. Sao	Chormalda	141.122
9.	Sri R.B. Das	Kundrupani	10.255
10.	M/s. O.M.D.C.	Bhadrasahi	998.706
11.	M/s. Facor	Katasahi	13.674
12.	Dr. Sarojini Pradhan	Sidhamath R.F.	264.769
13.	M/s. TISCO	Sidhamath R.F.	416.99

List of Flora of Keonjhar Forest Division.

Local Name	Botanical Name
Achhu	Morinda tinctoria
Amba	Mangifera indica
Ambada	Spondias mangifera
Ambansia	Bauhinia racemosa
Ankula	Alangium lamarkii
Arjuna	Terminalia arjuna
Antra	Helicteres isora
Asan	Terminalia alta (tomentosa)
Ashoka	Saraca indica
Aswastha	Ficus religiosa
Anantamul	Hemidesmus indicus
Atundi	Combretum decandrum
Amla	Emblica officinalis
Ata	Anona squamosa
Babul	Acacia nilotica
Baghai	Pollinidium binatum
Bahada	Terminalia bellerica
Baidank	Mucuna pruriens
Bandhana	Ougeinia oojenensis
Barun	Crataeva religiosa
Bhata (Puijam)	Eugenia operculata
Barabakulia (Dhobein)	Dalbergia paniculata
Bara	Ficus bengalensis
Baula	Manilkera hexandra
Bela	Aegle marmelos
Bija (Piasal)	Pterocarpus marsupium
Borkuli	Zizyphus mauritiana
Behanta	Limonia acidissima
Bhalla	Semicarpus anacardium
BanKhajuri	Phoenix sylvetris
Barada	Lasiobema returum
Bichhuañi	Tragia involucrata
Bhurkunda	Hymenodictyon excelsum
Bhendia-mardan (Girdhini, Genduli)	Sterculia urens
Bhain kurama	Ixora parviflora

Local Name	Botanical Name
Char	<i>Buchanania lanzon (latifolia)</i>
Champa	<i>Michelia champaca</i>
Chauli	<i>Elaeodendron glaucum</i>
Chakundi	<i>Cassia siamea</i>
Chandan	<i>Santalum album</i>
Chhatiana	<i>Alstonia scholaris</i>
Chadeigudi	<i>Vitex penduncularis</i>
Debadaru	<i>Polyalthia longifolia</i>
Damkurud (Kafarga)	<i>Gardenia latifolia</i>
Dhamian	<i>Grewia tiliaefolia</i>
Dhatuki (Jhattika)	<i>Woodfordia fruticosa</i>
Dhauranja	<i>Holoptelia integrifolia</i>
Dhaura	<i>Anogeisus latifolia</i>
Dimiri	<i>Ficus glomerata</i>
Dalsingha	<i>Canthium didyurum</i>
Dudukurum	<i>Wrightia tomentosa</i>
Eksira	<i>Schrebra swietenoides</i>
Gambhari	<i>Gmelina arborea</i>
Gangasiuli (Kharkhai)	<i>Nyctanthes arboristis</i>
Ghantol	<i>Zyzyphus xylopyra (glamberima)</i>
Gharkhair (Khadar)	<i>Accacia lanticularis</i>
Gohira	<i>Accacia leucophloea</i>
Ganiari (Hopo)	<i>Cochlospermum gossypium</i>
Giringa	<i>Pterospermum heyneanum</i>
Guakuli	<i>Maba buxifolia</i>
Ghodalenja	<i>Albizzia stipulate</i>
Gandha palas	<i>Mitusa velutina</i>
Gilo	<i>Entada scandens</i>
Hariankuli (Kamini)	<i>Muraya exotica</i>
Harida (Kasaphal)	<i>Terminalia chebula</i>
Halanda (Kurum, Haldu, Koim)	<i>Adina cordifolia</i>
Jamu	<i>Syzygium cumini</i>
Jautha	<i>Artocarpus lakoocha</i>
Jayasandha	<i>Litsea sebifera</i>
Koim (Mitounia)	<i>Mitragyna parviflora</i>
Kasi	<i>Bridelia retusa</i>

Local Name	Botanical Name
Kaitha	Feronia elephantum
Karada (Padashi)	Cleistanthus collinus
Karanja	Pongamia glabra (Pinnata)
Kapasia	Kydia calycina
Kangara (Kathsiara)	Xylia xylocarpa
Kafakal	Strychnos potatorum
Kadamba	Anthocephalus indica
Kanchan	Bahunia purpurea
Kenkar (Rajamai)	Garuga pinnata
Kalchua	Glochion lanceolarium
Kanteikoli	Zizyphus oenoplia
Kamalagundi	Mallotus philippinensis
Khurudu	Gardenia turgida
Kansa	Hymenodictyon excelsum
Khair	Accacia catechu
Kusum	Schleichera oleosa
Kendu (Bidipata)	Diospyros melanoxylon
Koinya (Tentuli)	Tamarindus indica
Kochila	Strychnos nux-vomica
Kumbhi	Careya arborea
Kodal	Sterculia villosa
Kurein (Kuduchi)	Hollarhena antidysenterica
Kalicha	Diospyros sylvatica
Khakada	Casearia tomentosa
Limboo (Neem)	Azadirachta indica
Ludho	Symplocos racemosa
Mahalimbo	Ailanthua excelsa
Mahul	Madhuca indica
Moi (Jia)	Lannea coromandelica
Mankad-kendu	Diospyros peregrine
Marad-Nai	Milletia auriculata
Mandika (Kuruna)	Walsura plicata
Mutun	Smilax macrophylla
Nai-palash	Butea superba, spatholobus roxburghii
Nageswar	Mesua ferrea
Nun-munia	Embelia robusta

Local Name	Botanical Name
Oau	<i>Dillenia indica</i>
Panas	<i>Artocarpus heterophyllus (integrifolia)</i>
Panigambhari	<i>Trewia nudiflora</i>
Pani kusum	<i>Heynea trijuga</i>
Phasi	<i>Anogeisus acuminata</i>
Phanaphana	<i>Oroxylum indicum</i>
Panikodal	<i>Sterculia colorata</i>
Paldhua	<i>Erythrina indica</i>
Patuli	<i>Stereospermum suaveolens</i>
Palash	<i>Butea monosperma</i>
Pitajamu (Kathajamu)	<i>Eugenia heyneana</i>
Pitalu	<i>Dioscorea bulbifera</i>
Rai	<i>Dillenia pentagyna</i>
Ritha	<i>Sapindus emarginatus</i>
Sabai (Panas)	<i>Ischaemum angustifolium (Polinidium angustifolia) (Eulaleopsis)</i>
Sal (Sargi, urjam)	<i>Shorea robusta</i>
Saguan	<i>Tectona grandis</i>
Sahada	<i>Streblus asper</i>
Salara (mahana)	<i>Randia dumetorum</i>
Sajana (Muniga)	<i>Moringa oleifera</i>
Sarap (Salap)	<i>Caryota urens</i>
Sisoo	<i>Dalbergia sisoo</i>
Sisoo (Rose wood)	<i>Dalbergia latifolia</i>
Suan (Rohini)	<i>Soyamida febrifuga</i>
Sunari	<i>Cassia fistula</i>
Sins (Tinia, Kala)	<i>Albizia lebbek</i>
Sidha	<i>Lagerstroemia parviflora</i>
Simili	<i>Bombax ceiba</i>
Sijhu	<i>Euphorebia nivulia</i>
Siali (Nai)	<i>Bauhinia vahlii</i>
Safai	<i>Boswellia serrata</i>
Satabari	<i>Asparagus racemosa</i>
Teikor (Tilok)	<i>Nandia uliginosa</i>
Tal	<i>Borassus flabellifer</i>
Tentela (Sirish-Dhala)	<i>Albizia procera</i>
Toon	<i>Tona ciliata</i>

List of Fauna of Keonjhar Forest Division

Local Name	English Name	Zoological Name
A. ANIMALS		
Badudi	Shortnosed fruit-bat	<i>Cyriopterus spinx</i>
Bajrakapta	Pangolin	<i>Mannis crassicaudata</i>
Bagha	Tiger	<i>Panthera tigris</i>
Banabilei	Jungle cat	<i>Felis chaus affinis</i>
Barha	Wild pig	<i>Sus scrofa oristatus</i>
Bhalu	Sloth bear	<i>Melursus ursinus</i>
Beleramua	Flying squirrel	<i>Petaurita philippinensis</i>
Bilua	Jackal	<i>Canis aurene-indicus</i>
Harina	Spotted deer	<i>Axis axis</i>
Gayal	Bison	<i>Bos gaurus</i>
Gad Bhalu	Patel	<i>Mallivera capensis</i>
Gunduchimusa	Squirrel	<i>Funambulus pennanti</i>
Gurandi	Mouse deer	<i>Tragulus meminna</i>
Hafi	Elephant	<i>Elephas maximus indicus</i>
Hefa (Gandhia)	Heeyna	<i>Hyaena hyaena</i>
Jhinka	Porcupine	<i>Hystrix indica indica</i>
Lenkada	Leopard	<i>Panthera pardus fusca</i>
Katash	Today cat	<i>Paradoxurui Hemapharoditus</i>
Kattas	Large Indian civet	<i>Viverra zibatha</i>
Kokisiali	Fox	<i>Valpes bengalensis</i>
Kutura	Barking deer	<i>Muntiacus muntjack</i>
Mankad (Hanu)	Langur	<i>Presbytes entellus</i>
Mankada (Pati)	Rhesus monkey	<i>Macaca mullata</i>
Musa	Rat	<i>Rattus rattus</i>
Neula	Mongoose (common)	<i>Herpestes edwardsii</i>
Neula (Kuji)	Small Indian mongoose	<i>Herpetes auropunctatus</i>
Nilagai	Blue bull	<i>Boalaphus tragocamelus</i>
Odha	Common otter	<i>Lutra lutra</i>
Sariapatni	Small Indian civet	<i>Vivercula indica</i>

Local Name	English Name	Zoological Name
Sambar	Sambar	<i>Cervus unicolor</i>
Thekua	Hare	<i>Lepus nigricollis ruficaudatus</i>
B. BIRDS		
Bani	-	<i>Acridotheres tristis</i>
Baya	-	<i>Ploccus phillipinus</i>
Bajapakhi	-	<i>Astur badius</i>
Banakukuda	Jungle fowl (red)	<i>Gallus gallus</i>
Baga	-	<i>Ergetta garzetta</i>
Bhadbhadalia	-	<i>Coracas bengalenis</i>
Bhaliakhai	Hornbill (grey)	<i>Tikos birostris</i>
Brahminy duck	-	<i>Casarca feruginea</i>
Bhrungaraj	-	<i>Dissemurus paradisens</i>
Chataka	-	<i>Micropus affinis</i>
Chilla	-	<i>Milvus migrans</i>
Common grey bee eater	-	<i>Merops orientalis</i>
Common hora	-	<i>Aegithina tiphiahumai</i>
Dahuka	-	<i>Amangonis phoenicurveus</i>
Deulia para	-	<i>Columba livia</i>
Gendalia	-	<i>Anastomus osettans</i>
Gharchhatia	-	<i>Passer domesticus</i>
Gobara chadhei	-	<i>Molpasetes cafer</i>
Haldibasanta	-	<i>Oriolus xanthornus</i>
Harada chadhei (Green Pigeon)	-	<i>Cracopus phoenicopterus</i>
Hansa	-	<i>Anas poaciehancha</i>
Kajalpati	-	<i>Dicrurus macrocerus</i>
Kau (Pati)	-	<i>Corvus splendens</i>
Kau (Damara)	-	<i>Corvus macrothyneos</i>
Kochilakhai (Horn bill)	-	<i>Anthracoceros coronatus</i>
Koili	-	<i>Eudynamis scolopaceus</i>
Kumbhatua	-	<i>Centropus sinensis</i>
Mayur	-	<i>Pavo cristatus</i>

Local Name	English Name	Zoological Name
Macharanka (King Fisher)	-	<i>Ceryle rudis</i>
Panikua	-	<i>Phalacrocorax higer</i>
Pecha	-	<i>Athena brama</i>
Sari	-	<i>Gracula religiosa</i>
Saguna	-	<i>Sacrogyaps calvus</i>
Sankhachila	-	<i>Haliastur indus</i>
Teetri (Partridge)	-	<i>Francolinus francolina</i> <i>Siae</i>
White browed bulbul	-	<i>Pycnonotus luteolus</i>
Whistling teal	-	<i>Dendrocynna javanica</i>
C. REPTILES & AMPHIBIAN		
Ahiraj (King Cobra)	-	<i>Lopheophagus hannah</i>
Ajagara	Python	<i>Pythonmolurus</i>
Boda (Russel's viper)	-	<i>Viper russelli</i>
Chiti (Common krait)	-	<i>Bungarus caeruleus</i>
Dhamana (Rat snake)	-	<i>ptyas mucosus</i>
Domundia	-	<i>Eryx conicus</i>
Laudonkia	-	<i>Dryophis nasutus</i>
Naga (Cobra)	-	<i>Naja naja naja</i>
Rana	-	<i>Bungarus fasciatus</i>
Tampa	-	<i>Naja naja kuothia</i>
Telisapa	-	<i>Typhlops brahminus</i>
Cainchha	-	<i>Kachunga tectum tentoria</i>
Kumbhira mata	-	<i>Crocodylus palustris</i>
Godhi	-	<i>Varanus salvator</i>
Jhitipiti	-	<i>Hemiodoctylus flavirudis</i>
Pohala endua	-	<i>Chammaclea zeylanicus</i>
D. FISHES		
Balla	-	<i>Wallgonia attu</i>
Baligarda	-	<i>Glossogobius giuris</i>
Bhakura	-	<i>Catla catla</i>
Chenga	-	<i>Ophiocephalus gachua</i>

Local Name	English Name	Zoological Name
Chitala	-	<i>Notopteus chitala</i>
Dandakhiri	-	<i>Esomus dandakhiri</i>
Jalanga	-	<i>Pangasius pangasius</i>
Kantia	-	<i>Myotus cavasius</i>
Kerandi	-	<i>Barbus ambassis</i>
Kou	-	<i>Anabas festudineus</i>
Magura	-	<i>Clarias batrachus</i>
Mirkali	-	<i>Cirrhina mrigala</i>
Mohurahi	-	<i>Amblypharyngodon mola</i>
Pohala	-	<i>Cirrhina reba</i>
Phali	-	<i>Notopterus notopterus</i>
Rohi	-	<i>Labeo rohita</i>
Serana	-	<i>Barbus serana</i>
Seula	-	<i>Ophiocephalus striatus</i>
Singi	-	<i>Heterophneustes fossilis</i>
Todi	-	<i>Mastacembelus armatus</i>

COPY OF LETTER FROM MINISTRY OF MINES

REGD POST



GOVERNMENT OF INDIA
 MINISTRY OF MINES
 INDIAN BUREAU OF MINES
 MCCM CENTRAL ZONE

No. 314(3)/2007-MCCM(CZ)/MP-27

Nagpur, Dated: 11/12/2007

To,

Shri Ramesh Prasad Sao, Owner
 Near Gandhi Park, Chaibasa - 833-201
 District - Singhbhum West,
 Jharkhand.

Sub:

Approval of Modifications in Approved Mining Plan of Guahi Iron ore mines of Shri Ramesh Prasad Sao over an area of 365.026 hectares, near village Guahi, in Keonjhar district of Orissa, submitted under rule 10 of MCDR, 1988.

Ref:

1. Your ROP's letter no. GM(G)/IBM/376/07 dated 06.09.2007
2. This office letter of even no. dated 15.11.2007
3. Your letter no. GM(G)/IBM/390/07 dated 30.11.2007
4. This office letter of even no. dated 05.12.2007
5. Your letter no. GM(G)/IBM/392/07 dated 07.12.2007.

Sir,

In exercise of the powers delegated to me under rule 10(2) of Mineral Conservation & Development Rules, 1988, vide Gazette Notification No. T-43010/CGBM/88 dated 27-4-1989, I hereby approve the modifications in the approved Mining Plan in respect of Guahi Iron ore Mines of Shri Ramesh Prasad Sao, over an area of 365.026 hectares in Keonjhar district of Orissa submitted under Rule 10 of MCDR, 1988. This approval is subject to the following conditions in addition to the conditions imposed while approving the Mining Plan vide letter No. 314(3)/2004-MCCM(CZ)/MP-04 dated 15.03.2005.

- i) This modification in the approved Mining Plan is approved without prejudice to any other laws applicable to the mine area from time to time whether made by the Central Government, State Government or any other authority.
- ii) It is clarified that this approval of modification in the approved Mining Plan does not in any way, imply the approval of the Government in terms of any other provisions of the Mines & Minerals (Development & Regulation) Act, 1957 or the rules framed thereunder or any other laws.
- iii) It is further clarified that this approval of modification in the approved Mining Plan is subject to the provisions of Forest Conservation Act, 1980 and Forest Conservation Rule 1981 and other relevant statutes, orders and guidelines which may be applicable to the mine area from time to time.

The approved Mining Plan is subject to the provision of the Mines Act 1952 and Rules & Regulations made thereunder including submission of notice of opening, appointment of manager and other statutory officials.

- v) The execution of modification in the approved Mining Plan shall be subject to vacation of prohibitory orders/notices, if any.
- vi) The approval of mining plan and proposed activities is restricted to the mining lease area only.
- vii) If anything is found to be concealed as required by the Mines Act in the content of the mining plan and the proposals for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
- viii) The modification in the approved Mining Plan is approved without prejudice to any other order or direction from the court of competent jurisdiction.
- ix) Your attention is invited to the Supreme Court interim order in W.P.(C) No.202 dated 12-12-96 for compliance. The approval of modification in the approved Mining Plan is, therefore, issued without prejudice to and is subject to the said directions of the Supreme Court as applicable.
- x) A copy of environment Impact Assessment Environmental Management Plan (EIA-EMP) as approved by MOEF (Ministry of Environment & Forests) shall be submitted to IBM immediately after approval of MOEF.
- xi) Yearly report as require under Rule 23E(2) of MCDR '88 setting forth the extent of protection and rehabilitation works carried out as envisaged in the approved progressive mine closure plan and if there is any deviations, reasons thereof shall be submitted before 1st July of every year.
- xii) The Environmental Monitoring Cell established by the company shall continue monitoring ambient air quality, dust-fall rate, water quality, soil sample analysis and noise level measurements at various stations established for the purpose both in the core zone and buffer zone as per requirement of Environment Guidelines and keeping in view IBM's circular No. 3/92 & 2/93 season wise every year or by engaging the services of an Environmental Laboratory approved by MOEF/CPCB. The data so generated shall be maintained in a bound page register kept for the purpose and the same shall be made available to the inspecting officer, on demand.

Yours faithfully,

Encl : One copy of approved modification in Mining Plan.


Kanchan Saha
Controller of Mines - C.Z.

Copy for information to:

1. The Director of Mines Safety, Directorate General of Mines Safety, Chhatra Region, 6A & Post Chhatra, Durgam - Singbhum West, alongwith one copy of approved modification in Mining Plan.

Department Building, New Capital, Bhubaneswar-751001 (Orissa), along with
one copy of approved modification in Mining Plan.

3. M/s Geomin Consultants (P) Ltd. 267, Kharavela Nagar, Bhubaneswar- 751 001,
Orissa.

(Ranjan Sahoo)
Controller of Mines (CZ)

Ramesh Prasad Sao

MINE OWNERS

Received

0/0 thn
 HEAD CLERK
 Divisional Forest Officer
 RPS/JODA/OUT/12-13/392

Date:- 10/10/2012

TO
 The Divisional Forest Officer
 Keonjhar
 Odisha

Sub- Progress of implementation of site specific Wild life Conservation Plan.

Ref.- your office memo no-6992 on 27th September 2012

Sir

With reference to the above captioned subject, it is to inform you that as per our approved Site Specific Wild Life Conservation Plan for Guali Iron Ore Mines, all works under this scheme are supposed to be executed by the Divisional Forest officer, Keonjhar Division both within the project area and outside the project area i.e in project impact area under the guidance of Forest, Rourakela Circle. Estimated cost for measures to be taken inside (Rs 39.00 Lakhs) and outside (Rs. 238.00 Lakhs) the Lease area within 10 year, Rs-27700000/- (Rupees Two crores and seventy seven lakhs) had been deposited to Forest Department by us.

However, the Lessee is taking up followings activities within the Mining Lease area:-

Sl. No.	Item of work	Expenditure	
1	Two number of Fire watcher in each shift are engaged for fire protection with required tools round the clock during the summer season and two person are engaged every day to clean and buried dry leaf in a pit to avoid spread up fire	For Two fire watcher.	758000/-
		For two leaf cleaner.	128000/-
2	Two numbers(2) of strategic check dams were built on the Topadihi nalla		896415/-
	1800 mtrs guard wall has been erected in both side of nalla .		2400000/-
	Bank plantation (nalla safety zone)with 6000 saplings of Local species for the conservation of soil and moisture.		90000/-

Regd Off: Avani Signature, 2nd floor, 91 A/1 Park street, Kolkata- 700 016, West Bengal, Ph: 03340071632/784/785, Fax: 03340071638
 Corp. Off: European Qtr, Opt. Gandhi Maidan, P.P- Chaibasa, West Singhbhum-833201, Jharkhand, Ph-06582-256268/257698, Fax: 257700
 Admin. Off: Plot No: 334, Kumar Joda, Near T.V Tower, P.O.Joda, Dist- Keonjhar- 758034, Orissa, Ph: 06767-272446/881, 273756, Fax- 272363

E- Mail: rameshprasadsao@yahoo.co.in rameshprasadsao@eriffmail.com

Ramesh Prasad Sao

MINE OWNERS

Ref No.: RPS/JODA/OUT/12-13/392

Date:- 10/10/2012

	Dumps are being covered with 82400m ² of coir mat .		7004000/-
	Three number of settling tanks have been constructed, and garland drain has been developed at the toe of dump, connected to settling tank to settle of the sediments discharge of run-off water into the Topadh nalla .	For Garland drain.	60000/-
		For three settling Tank and Maintenance.	896415/-
3	We celebrate World environment day every year on June 5th with awareness talk meet & mass plantation drive with the peripheral villagers. Beside this the drawing competition, essay writing, debate, slogan poster competitions organized among the peripheral school children and employees of the organization to promote and spread the awareness about values of nature and wild life among them.		80600/-
4	Blank plantation is being done in every year with suitable species wherever required in the forest area within the M L area.	For 11400 saplings planted.	171000/-
5	For dust suppression, 5.7 km. length fixed sprinkling system has been installed and 6 nos. of water tanker, (1 no. 28KL, 2no. 10KL and 3 no.8KL with sprinkler system) are being used to suppress and control the fugitive dust emission.	For water Tanker .	23875000/-
		For fixed sprinkler system.	2662000/-
6	For recharging the ground water we have developed a rainwater harvesting pit adjacent to lease area and three settling tanks.	For Rainwater harvesting.	1073961/-
7	Safety zone all around the ML boundary has been fenced with barbed wire fencing and planted with local species.	For S/Z Fencing.	2544000/-
		For 30000 saplings planted and maintenance.	660000/-

Regd Off: Avani Signature, 2nd floor, 91 A/1 Park street, Kolkata- 700 016, West Bengal, Ph: 03340071632/784/785, Fax: 03340071638
 Corp. Off : European Qtr. Opt. Gandhi Maidan, P.P- Chaibasa, West Singhbhum-833201, Jharkhand, Ph-06582-256268/257698, Fax: 257700
 Admin. Off: Plot No: 334, Kumar Joda, Near T.V Tower, P.O.Joda, Dist- Keonjhar- 758034, Orissa, Ph: 06767-272446/881, 273756, Fax- 272363

E- Mail: rameshprasadsao@yahoo.co.in rameshorasadsao@eriffmail.com

Ramesh Prasad Sao

MINE OWNERS

Ref No: : RPS/JODA/OUT/12-13/ 392-

Date:- 10/10/2012

Total expenditure done by the lessee till September 2012	Rs-43299391/-
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Apart from the above we have several programme to execute which are as follows -
Two settling pond , one rain water harvesting pit, guard wall all along the Topadih nalla which is running within our lease area, fixed water sprinkling system all along the haul road in lease area , block or blank plantation in lease area, etc.

This is for your kind information.

Regards

For, Sri R.P.Sao
Lessee Guāli Iron ore mines

Regd Off: Avani Signature, 2nd floor, 91 A/1 Park street, Kolkata- 700 016, West Bengal, Ph: 03340071632/784/785, Fax: 03340071638
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E- Mail: rameshprasadsao@yahoo.co.in rameshorasadsao@eriffmail.com

20106
03

ANNEXURE: - V Item

OMC

ODISHA
NEW OPPORTUNITIES

Letter No. 9647 OMC/F&E/2022
June 17, 2022
18

To

The Engineer-in-Chief, Water Resources
Department of Water Resources,
Govt. of Odisha,
Secha Sadan,
Bhubaneswar - 751 023

Sub.: Proposal for non-forestry use of 194.683 ha of forest land in favour of M/s Odisha Mining Corporation (OMC) involved in total mining lease area of 358.258 ha of Guali Opencast Iron Ore Mines located in District Keonjhar (Odisha)

Ref.: " Letter vide File No.8-96/1996-FC(PT.-I) dt. 03.06.2022 (copy enclosed)

Sir,

Guali Iron Ore Mines of OMC over 358.258 ha falls under Survey of India toposheet no. F45H8 and F45N5 at latitudes 21°59'21.98" to 22°00'01.10" North and Longitude 85°17'04.19" to 85°18'57.35" East. The leasehold area spreads over the village limits of Guali, Laharapada, Panduliposi, Topadihi, Rugudihi and Sidhamath RF, Tahasil- Barbil, District Keonjhar of Odisha. The location of the proposed project is shown in the enclosed map (Plate - I).

The ML area comprises forest land over 332.10 ha out of which the Forest Clearance (FC) has been obtained over 137.417 ha and OMC has applied for balance 194.683 ha forest land vide Proposal No. FP/OR/MIN/140713/2021 dated 12.04.2021. During examination of forest diversion proposal by MoEF&CC, Govt. of India, it has been observed vide point no. (iv) that,

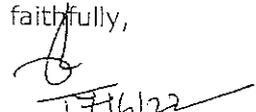
"A Nallah named Topadihi flows inside the ML area and it has been proposed to be diverted. Comments of the Water Resource Department of the State on the efficacy of proposed diversion of nallah needs to be informed by the State."

The mining plan for the entire lease area of 358.258 ha has been approved by Indian Bureau of Mines (IBM) vide letter No.MP/A/38-ORI/BHU/2020-21/2916 dated 19.03.2021. As per the prescriptions of the approved plan, the Topodihi Nalla passing within the ML area is proposed for diversion during the conceptual period for merging of both the pits i.e. Topodihi pit and Baliasahi pit, which will enhance the mineable reserve and life of the mine.

For compliance to the above observations, it is requested to kindly provide valuable comments on Topodihi nala proposed for diversion for onward submission to MoEF&CC, Govt. of India, which would facilitate OMC for grant of Stage - I FC in respect of balance 194.683 ha forest land within Guali Iron Ore Mines.

Yours faithfully,

Encl.: As above


17/6/22
Executive Director (F&E)

Odisha Mining Corporation Ltd.

(A Gold Category State PSU)

Registered Office : OMC House, Bhubaneswar - 751001, India

Tel : 0674-2377400/2377401, Fax : 0674-2396889, 2391629, www.omcltd.in

CIN : U13100OR1956SGC000313


Receiving Officer
Jl. E.I.C. (WR) Orissa Bhubaneswar

Memo No. 9648 /OMC/F&E/2022

June 17, 2022
18

Copy to Director (Operations) Technical, Head Office, Bhubaneswar, for kind information and necessary action.


17/6/22
Executive Director (F&E)

Memo No. 9649 /OMC/F&E/2022

June 17, 2022
18

Copy to Regional Manager, Barbil/Manager (Mining), Guali Iron Ore Mines for kind information and necessary action.


17/6/22
Executive Director (F&E)

etc



Government of Odisha
Department of Water Resources

No. 21122 /WR, Dtd. 08.08.2022

Irr.-II-WRC-201/2022

To,

The Executive Director (F&E),
 OMC Ltd, Bhubaneswar

Sub: Proposal for non-forestry use of 194.683 ha of forest land in favour of M/s Odisha Mining Corporation (OMC) involved in total mining lease area of 358.258 ha of Guali Opencast Iron Ore Mines located in District Keonjhar- Technical opinion on Topadihi nala proposed for diversion regarding

Ref: OMC Letter No. 9647 Dt 18.06.2022 to EIC,WR

Sir,

With reference to the subject and letter under reference, I am directed to enclose herewith the technical opinion of Engineer-in-Chief, WR on Topadihi nala proposed for diversion in the context of the Proposal for non-forestry use of 194.683 ha of forest land in favour of M/s Odisha Mining Corporation (OMC) involved in total mining lease area of 358.258 ha of Guali Opencast Iron Ore Mines located in the District of Keonjhar.

Encl: As Above.

Yours faithfully,

Joint Secretary to Government

Memo No. 21123 /WR, Dtd. 8/8/2022

Copy forwarded to Sr. BS to ACS, DoWR for kind information of ACS.

Under Secretary to Government

Memo No. 21124 /WR, Dtd. 8/8/2022

Copy forwarded to the EIC, WR, Odisha. Secha Sadan, Bhubaneswar for information and necessary action.

Under Secretary to Government

OFFICE OF THE ENGINEER-IN-CHIEF,
WATER RESOURCES, ODISHA, BHUBANESWAR,
Phone - 0674-2390180, 2392486 (Fax) e-mail : eic-wr.od@nic.in

Letter No. WG-OMC-15/22 - 19995/WE Dt. 05/08/2022

From

Er. B.K.Mishra
Engineer-in-Chief. WR

To

Additional Chief Secretary, to Govt,
Department of Water Resources,
Odisha,
Bhubaneswar.

Sub: Regarding diversion of Topadihi nalla flowing in the mine lease boundary of Guali Opencast Iron ore mines of Odisha Mining Corporation.

Madam.

In inviting a kind reference to the subject cited above, it is to state that OMC has requested for comments on the efficacy of proposed diversion of Topadihi nallah passing within the mining lease area of Guali Opencast Iron Ore Mines located in Keonjhar District.

Chief Engineer, Planning reported that, as per Google earth imagery and SOI toposheets available, it has been verified that the Topadihi nallah, a tributary of Karo river passes within the Guali Iron Ore mining lease area in Brahmani Basin of Odisha. By the proposed nallah diversion, it is planned to merge both the mining pits located on the either side of the nallah to enhance the mineable reserve and life of the mine, there will be no issue on discharge of the nallah due to the diversion proposal and may be considered for obtaining necessary clearance from MOEF & CC, Govt of India (Copy Enclosed).

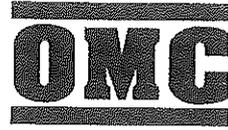
This is for your kind information and necessary action.

Yours faithfully,

Encl: As above.


Engineer-in-Chief, WR

19814



Annexure-VI

Cost Benefit Analysis in respect of the proposal for diversion of 194.683 Ha of forest land for mining of Iron Ore from Guali Iron Ore Mining Lease of M/s OMC Ltd. in Barbil Tahasil under the jurisdiction of Keonjhar Forest Division of Keonjhar District, Odisha.

Table-C: Existing guidelines for estimating benefits of forest diversion in CBA

Sl. No.	Parameters	Remarks
1	Increase in productivity attribute to the specific project.	Average annual production of 300,00,000 MT of Iron Ore with size distribution and the price at the mines head is as indicated below: Calibrated lump Iron Ore: (10-40 mm): 84,00,000 @ Rs. 6000/- Iron Ore fines (-10 mm size): 216,00,000 @ Rs. 3150/- Hence, the annual sale value of Iron ore at the mines head would be Rs. 11844.00/-Crores at the prevailing market rate. The net gain per annum comes to Rs. 6632.4773904 Crores [(Rs. 11844.00 Crore)- (Rs. 490.2096 Crore i.e. average cost of production per ton of Iron Ore + 4721.3130096 Crore per annum towards deposit of royalty, DMF, NMET and GST)] Hence, the net gain of mines for a period of 10 years comes to= Rs. 6632.4773904 x 10 years = Rs. 66324.773904 Crore
2	Benefits to economy due to the specific project.	One metric ton (MT) of iron ore contributes 0.588 MT of steel. Therefore a quantity of 300,00,000 MT of iron ore will produce around 176,40,000 MT of steel by SAIL which has a sale value of Rs. 93315.60/- Crores (Price of one MT of steel is Rs 52,900.00 as on July, 2022).
3	Number of population benefited due to the specific project.	500
4	Economic benefits of direct and indirect employment due to the project.	Rs. 75 Crore (500 Persons x Rs. 500/- as average wage x 300 working days x10)
5	Economic benefits due to Compensatory Afforestation	Rs. 8.61 (Rs. 8848/- x 194.683 ha. x 50 years)
Total		Rs. 66408.383904 Crore

Dr. Suman Krishna Sit
General Manager (Geology)
Authorised Signatory
Odisha Mining Corporation Limited

Odisha Mining Corporation Ltd.
(A Gold Category State PSU)

Registered Office : OMC House, Bhubaneswar - 751001, India
Tel : 0674-2377400/2377401, Fax : 0674-2396889, 2391629, www.omcltd.in
CIN : U13100OR1956SGC000313

Parameters for evaluation of loss of forest over 332.10 ha forest area required for mining and ancillary activity within the Guali Iron Ore Mines of M/s OMC Ltd. in Keonjhar District, Odisha

Table-B: Estimation of cost of forest diversion

Sl. No.	Parameters	Remarks
1	Eco-system services losses due to proposed forest diversion.	Rs. 24,90,75,000/- [Rs. 7,50,000/- x 332.100 ha]
2	Loss of animal husbandry productivity, including loss of fodder.	Rs. 2,49,07,500/- [Rs. 24,90,75,000/-x 10%]
3	Cost of human re-settlement.	Nil
4	Loss of public facilities and administrative infrastructure (roads, building, schools, dispensaries, electric lines, railways etc.) on forest land, which would require forest land if these facilities were diverted due to the project.	Nil
5	Possession value of forest land diverted	Rs. 7,47,22,500/- [Rs. 24,90,75,000/-x 30%]
6	Cost of suffering to oustees	Nil
7	Habitat fragmentation cost	Rs. 12,45,37,500/- [Rs. 24,90,75,000/-x 50%]
8	Compensatory afforestation and soil & moisture conservation cost.	Rs. 11,42,03,000/-
Total estimation of cost of forest diversion		Rs. 58,74,45,500/-

Table-C: Existing guidelines for estimating benefits of forest diversion in CBA

Sl. No.	Parameters	Remarks
1	Increase in productivity attribute to the specific project.	Rs.66324.773904 Crore
2	Benefits to economy due to the specific project.	-
3	Number of population benefited due to the specific project.	500 Nos.
4	Economic benefits of direct and indirect employment due to the project.	Rs. 75 Crore
5	Economic benefits due to Compensatory Afforestation	Rs. 8.61 Crore
Total estimation of cost of forest diversion		Rs.66408.383904 Crore

CB Ratio (Calculation is based on available information against the Parameters)= 1: 1130.46

Divisional Forest Officer,
Keonjhar Division

By Email

**Government of Odisha
Steel & Mines Department**

No. 614 /SM, Bhubaneswar, Dated the 27.01.2022
SM-MC1-MRL-0004-2021

From

Sri S. K. Mohanty
Under Secretary to Government

To

The Managing Director
M/s Odisha Mining Corporation Ltd.

Sub: Approval of proposal for acquisition of land for Guali Iron Ore mines of OMC Ltd in Barbil tahasil of Keonjhar district

Ref: Your letter No.18610/OMC, dated 03.12.2021

Sir,

In inviting reference to the letter and the subject cited above, I am directed to say that the proposal has been duly examined in the Department and the issues relating to it were also discussed with the concerned Officers of the OMC Ltd. In a meeting held under the chairmanship of the Principal Secretary to Government, Steel & Mines Department in presence of the Special Secretary and the Director of Mines.

In this regard, it is to be noted that mining operation over the private land in any mining lease area is covered under the provisions of Rule 52 & Rule 53 of M C Rules, 2016, which stipulate that;

52. Payment of compensation to owner of surface rights etc.- (1)

The holder of a mineral concession shall be liable to pay to the occupier of the surface of the land over which he holds the concession, such annual compensation as may be determined by an officer appointed by the State Government by notification in this behalf in the manner provided in sub-rules (2) to (4).

(2) In the case of agricultural land, the amount of annual compensation shall be worked out on the basis of the average annual net income from the cultivation of similar land for the previous three years.



(3) In the case of non-agricultural land, the amount of annual compensation shall be worked out on the basis of average annual letting value of similar land for the previous three years.

(4) The annual compensation referred to in sub-rule (1) shall be payable on or before such date as may be specified by the State Government in this behalf.

53. Assessment of compensation for damage- (1) After the cessation of mining activities as a consequence of expiry, lapsing, surrender or termination of a mineral concession, the State Government shall assess the damage, if any, done to the land by the reconnaissance or prospecting or mining operations, as the case may be, and shall determine the amount of compensation payable by the mineral concession holder, as the case may be, to the occupier of the surface land.

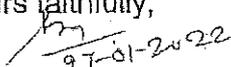
(2) Every such assessment shall be made within a period of one year from the date of cessation of mining activities as a consequence of expiry, lapsing, surrender or termination of the mineral concession and shall be carried out by an officer appointed by the State Government by notification in this behalf.

In fulfillment of the above provisions, the format of lease deed as prescribed in the Schedule VII of the said Rules, at clause 3.5 unequivocally explains that compensation (duly assessed under the provisions of RFCTLARR Act, 2013) for the damage on mining operation over the private land shall be taken up in the manner prescribed in the Rules and wherever, the compensation is not accepted by the occupier of the land, the same would be deposited with the State Government, who, being satisfied that the assessed compensation is reasonable, shall order the occupier to allow the Lessee to enter upon the said land and carry out such operations as may be necessary for the purpose of the Lease.

Thus, it clearly transpires that acquisition of private lands existing within the mining lease area is not mandatorily required for undertaking the mining operation on such lands, rather the same can be conducted in adherence of the above provisions of law. Therefore, approval of the proposal for acquisition of the private land for an extent of Ac.67.337 within the Guali Iron Ore Mining Lease is not warranted.

It is therefore advised that the OMC Ltd. may please proceed to undertake the mining operation in the private lands existing in Guali Mining Lease on the strength of the vested surface right and in due adherence to the above explained applicable provisions of law.

Yours faithfully,


27-01-2022
Under Secretary to Government

**GOVERNMENT OF ODISHA
REVENUE AND DISASTER MANAGEMENT DEPARTMENT
NOTIFICATION**

Whereas the draft of certain rules, which the State Government proposes to make in exercise of the powers conferred by sub-section(1) of section 109 of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (30 of 2013) was published, as required by section 112 of the said Act, in an Extraordinary issue of the Odisha Gazette no. 1480 dated 19th October, 2015 under the notification of the Government of Odisha in Revenue and Disaster Management Department No. R & REH-24/2015-29814 dated the 19th October, 2015, inviting objections and suggestions from all persons likely to be affected thereby till the expiry of a period of fifteen days from the date of publication of the said notification in the Odisha Gazette;

And whereas, no objection or suggestion on the said draft has been received by the Government during the stipulated period;

Now, therefore, in exercise of the powers conferred by sub-section (1) of section 109 of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (30 of 2013), the State Government do hereby make the following rules, namely : —

CHAPTER-I

PRELIMINARY

1. Short title, extent and commencement. — (1) These rules may be called the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2016.

(2) They shall extend to the whole of the State of Odisha.

(3) They shall come into force on the date of their publication in the

Odisha Gazette.

2. Definitions.— (1) In these rules, unless the context otherwise requires, —

- (a) "Act" means the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (30 of 2013);
- (b) "Central Government" means the Government of India;
- (c) "District Collector" means the officer appointed by the State Government as Collector and District Magistrate for a District;
- (d) "District Office" means office of the District Collector;
- (e) "Form" means forms appended to these rules;
- (f) "Land Acquisition Collector" means the Deputy Collector or any other officer designated as Land Acquisition Officer or Special Land Acquisition Officer by the State Government to perform all or any of the functions of Collector under the Act;
- (g) "landless" means landless person as defined in the Odisha Prevention of Land Encroachment Act, 1972;
- (h) "R and R" means Rehabilitation and Resettlement;
- (i) "Secretary/ Commissioner R & R" means an officer not below the rank of Additional Secretary appointed by the Government;
- (j) "section" means section of the Act;
- (k) "SIA" means Social Impact Assessment made under sub-section (l) of section 4; and includes with grammatical variations and SIA team shall be constituted accordingly;

- (1) "SIMP" means the Social Impact Management Plan prepared as part of the Social Impact Assessment study under sub-section (6) of section 4.
- (2) The words and expressions used but not defined in these rules, but defined in the Act unless the context otherwise requires, shall have the same meaning as assigned to them in the Act.

CHAPTER -II

3. Proposal by the Requiring Body for acquisition of land. — Whenever any Requiring Body proposes acquisition of land for public purpose, the detailed proposal for acquisition of land shall be submitted by the Requiring Body in Form- 'A' with the approval of the Department to which the project relates, to the concerned District Collector and if the land under proposed acquisition includes double cropped irrigated land, the District Collector shall forward the proposal to the Agriculture Department for their recommendation keeping in view the provision contained in section 10 and the Agriculture Department with their recommendation or objections, if any, shall return the same to the District Collector.

4. Summary scrutiny of application for land acquisition. — (1) On receipt of the application in Form- A completed in all respect, the District Collector, shall make summary scrutiny of the application and on being satisfied, shall forward it to the authority conducting SIA study with copy to the Department dealing with the subject matter of land acquisition and the Department to which the project relates.

(2) The District Collector shall send the land particulars of the proposed project area to the Tahasildar for updating the record-of-rights within a period of three months and where necessary, the Tahasildar shall obtain a plot-wise encumbrance from the concerned Sub- Registrar or

Registrar to initiate suo motu mutation proceedings to ensure that updation of records is complete.

5. Review to ensure updating of land records, restoration of titles and settlement of rights.— (1) Settling land rights due, but not settled and restoring of the titles of the Scheduled Tribes as well as the Scheduled Castes and other eligible families on the land to be acquired for public purpose shall be undertaken as a special drive together with land acquisition and immediately after the notification issued under section 4, the process of recognition and vesting of forest rights shall also be undertaken under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, and the rules made thereunder.

(2) The District Collector shall take monthly review meetings on restoration of titles, settlement of rights and updation of the records.

6. State SIA Unit.— (1)The State Government shall establish an independent organization (hereinafter referred to as the State SIA Unit), which shall be responsible for ensuring that the SIA study is conducted by such persons or bodies other than the Requiring Body as per the provisions of the Act.

(2) The State SIA Unit shall undertake the following tasks, namely:-

- (a) build and continuously expand a State Database of qualified SIA Resource Partners and Practitioners, which shall serve as network of individuals and institutions with the required skills and capacities to conduct SIA for land acquisition, Rehabilitation and Resettlement;

- (b) respond immediately to the appropriate Government's request for SIA study to be conducted by preparing a project-specific Terms of Reference (hereinafter referred to as ToR);
- (c) conduct training and capacity building programmes for the SIA team and make available manuals, tools, comparative case study reports and other materials required for the analysis;
- (d) provide ongoing support and corrective action, as required during the SIA process;
- (e) ensure that the transaction based, web-based workflow for SIA and Management Information System for land acquisition, Rehabilitation and Resettlement is maintained and that all relevant documents are disclosed as per the provisions of the Act;
- (f) maintain catalogue of all SIA and associated primary material;
- (g) continuously review, evaluate and strengthen the quality of SIAs and the capacities available to conduct them across the State; and
- (h) form group of District Level Resource persons comprising of minimum twenty persons with experts.

(3) (a) The Secretary or Commissioner Rehabilitation and Resettlement shall act as State Level Nodal Officer for facilitating State Level SIA unit for ensuring completion of SIA studies within the stipulated period.

(b) Additional District Magistrate shall act as District Level Nodal Officer to facilitate SIA teams for ensuring completion of SIA studies for each project within the stipulated period.

7. Preparation of project-specific Terms of Reference (ToR). — (1) After receipt of proposal from the District Collector, the State SIA Unit shall, —

(a) prepare a detailed project-specific ToR for each proposal of land acquisition, listing all the activities that must be carried out indicating the appropriate team size, number of field teams and profile of the team members and stipulate the schedule and deadlines for key deliverables for the SIA as detailed in Form-B; and

(b) determine an estimated SIA fee based on the ToR with clear break-up of costs for each item or activity which shall be based on the parameters including area, type, location of project and number of affected families as specified by the State Government to be deposited by the Requiring Body.

(2) The Requiring Body shall deposit the estimated SIA fee along with ten per centum of it towards administrative cost with the authority conducting SIA study in the Scheduled Bank account of the said authority under intimation to the Land Acquisition Collector and the State Government.

8. SIA notification. — (1) The State Government, on receipt of intimation from the authority conducting SIA study regarding deposit of SIA fee, shall issue notification within thirty days from the date of such intimation for carrying out SIA study in Form- C for commencement of consultation and Social Impact Assessment study, which shall be published in the official Gazette.

(2) The notification shall be made available in Odia language in the office of Panchayat, Notified Area council, Municipality or Municipal Corporation, as the case may be, and in the offices of the District Collector, the Sub-Divisional Magistrate and the Tahasildar and shall also be published at some conspicuous places of every village or ward, as the case may be, in the affected area and in token of such service, signature of two persons shall be obtained and in case the area is uninhabited, such publication shall be made in the adjacent habitated villages and shall be uploaded in the website of the State Government and the district concerned.

9. Social Impact Assessment study.— (1) The SIA study shall be conducted in consultation with concerned Panchayat, Notified Area Council, Municipality or Municipal Corporation, as the case may be, at village level or ward level in the affected areas, for the purpose of section 4 followed by a public hearing in the affected areas to ascertain the views of the affected families which shall be recorded in writing.

(2) The Social Impact Assessment Report prepared by the authority conducting the SIA study shall be submitted in Form-D to the State Government along with Social Impact Management Plan in Form-E listing the ameliorative measures required to be undertaken for addressing the impact of the project on any specific component referred to in sub-section (5) of section 4 within a period of six months from the date specified in the notification issued under sub-section (1) of section 4.

10. Selection of the SIA team. — (1) The authority conducting SIA study shall be responsible for selecting the SIA team for each project from the individuals and institutions registered or empanelled in the State database of qualified SIA Resource Partners and Practitioners.

(2) The Requiring Body shall, in no way, be involved in the appointment of the SIA team to carry out the SIA.

(3) The size and selection criteria for the SIA team shall be project-specific. The team size shall comprise of minimum five (5) and more members depending on the area, type and location of the project.

(4) The SIA team may be constituted by appointing individuals or an organization with experience in conducting SIA study or related field-based assessments and the team may include —

(a) a combination of independent practitioners, qualified social activists, academics, technical experts, who are not directly connected with the Requiring Body; and

(b) at least one woman member;

(5) A team leader shall be appointed from amongst the SIA team members to liaison with the authority conducting SIA study, public representatives, Government functionaries and the Requiring Body throughout the assessment period.

(6) The authority conducting SIA study shall have the right to change the team member and size of the team during the process of study.

(7) If at any stage, it is found that any team member or any member of his or her family directly or indirectly receives any benefit from the Requiring Body or any other stakeholder in the project, the said member shall be disqualified for the said project.

11. Process of conducting the Social Impact Assessment.— (1) The authority conducting SIA study shall collect and analyse a range of quantitative and qualitative data, undertake detailed site visit, use

participatory methods such as focussed group discussions, participatory rural appraisal techniques and informant interviews in preparing the Social Impact Assessment report.

(2) A detailed assessment based on a thorough analysis of all relevant land records and data, field verification, review and comparison with similar projects shall be conducted by such authority and for the purpose, all relevant information or records shall be provided by the District collector within fifteen days to such authority from the date of receipt of its written requisition.

(3) Based on the land assessment, land records and field verification, the SIA shall provide an accurate estimate of the number of affected families and the number of displaced families among them.

(4) A socio-economic and cultural profile of the affected area shall be prepared, based on available data and statistics, field visits and consultations as per Form- F:

Provided that where the land proposed to be acquired involves displacement of families, area for rehabilitation and resettlement of those families shall be identified in due consultation with those families and their representatives in the concerned local bodies and such identified resettlement sites shall be visited and a brief socio-economic profile of the site and its current resident population shall be indicated.

(5) Basing on the data collected in processes mentioned in the preceding sub rule and in consultation with public representatives, the affected communities and key stakeholders, the nature, extent and intensity of the positive and negative social impacts associated with the proposed project the Key Impact Area shall be identified and assessed as per Form- G.

12. SIMP to include R&R Entitlement Matrix.— Social Impact Management Plan shall, along with other ameliorative measures, provide detail Rehabilitation and Resettlement Entitlement Matrix of each of the enumerated affected and displaced families and detail land Schedule of the area identified for resettlement and rehabilitation of the displaced families.

13. SIMP to include Development Plan in case of acquisition in Scheduled Areas.— (1) Where land proposed to be acquired comes under Scheduled Areas and involves displacement of Schedule Caste and Schedule Tribe families, the Social Impact Management Plan shall contain a Development Plan prepared in accordance with the provisions under section 41 and in the formulation of such Development Plan, affected Scheduled Caste and Scheduled Tribe families, their representatives in the affected local bodies and the District Collector shall be consulted by the SIA.

(2) The Development Plan so prepared shall be discussed in the Gram Sabha or the Panchayats at the appropriate level in the Scheduled Areas in accordance with the provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996.

(3) Based on the discussions and opinion generated in the Gram Sabha or the Panchayats at the appropriate level, the District Collector shall review the Development Plan and modify it, if considered necessary, by giving sufficient reasons and justifications and during the review of the Development Plan by the District Collector, the Requiring Body shall also be consulted after which, the Development Plan shall be placed before the Gram Sabha for consideration and consent to the proposed acquisition of land and the Development Plan so consented by the Gram Sabha shall become final, copy of which shall be made available by the District

Collector to the State Government, the Department to which the project relates, the Department dealing with the subject matters relating to the Scheduled Tribes and Scheduled Castes Development, Requiring Body and the Administrator, R and R.

(4) Where a Development Plan is prepared, such Development Plan shall be implemented by the Requiring Body at its own cost in consultation with the Gram Sabha, which shall conduct regular social audit of the execution of the Development Plan and its findings shall be sent to the Requiring Body, Administrator, R and R, District Collector, the State Government, Department to which the project relates and the Department dealing with the subject matter relating to Scheduled Tribes and Scheduled Caste Development for appropriate action.

14. Process for conducting public hearings.— (1) Public hearings shall be held in the affected areas seeking feedback on the findings of SIA and to seek additional information and views which shall be recorded and incorporated in the final report.

(2) Public hearings shall be conducted in each Gram Sabha or ward, as the case may be, in the affected area where more than twenty-five per centum of the members are directly or indirectly affected by the acquisition of the land.

(3) The notice indicating date, time and venue of the public hearing shall be published two weeks in advance in the same manner as laid down in sub-rule (2) of rule 8.

(4) At least twenty-five per centum of adult members of the affected families in the Gram Sabha or Ward shall constitute the quorum for the meeting:

Provided that if in the first meeting of the Gram Sabha or Ward Sabha the quorum is not available then in subsequent meetings the quorum is not necessary.

(5) The draft SIA report and SIMP in the form of booklet shall be published in Odia language and given to the Panchayat, Notified Area Council, Municipality or Municipal Corporation, as the case may be, and to the offices of the District Collector, the Sub-Divisional Magistrate and the Tahasildar and the Requiring Body shall also be served with a copy of the draft SIA report and SIMP.

(6) The authority conducting the SIA study shall facilitate the public hearing which shall be organised by the district administration through the concerned Land Acquisition Collector and the Administrator, R and R.

(7) All the proceedings shall be held in Odia language to ensure that the participants understand and express their views.

(8) Representatives of the Requiring Body, concerned Sub-Collector, Land Acquisition Officer, Administrator, R and R, Tahasildar and other officers as decided by the District Collector shall also attend the public hearing and address the questions and concerns raised by the affected parties.

(9) Public representatives, representatives of Non-Government Organisations and media as may be allowed by the District Collector shall also be invited to attend the public hearings.

(10) The proceedings of the public hearing shall be video recorded and transcribed accordingly, which shall be submitted along with the final SIA report and SIMP.

(11) Objections raised during public hearing shall be recorded and shall form part of the SIA report.

(12) After the conclusion of the public hearings, the entire feedback received and information gathered in the public meetings shall be analysed and incorporated in the SIA report to be submitted to the authority conducting the SIA study.

(13) Consultation with the Gram Sabhas in the Scheduled Areas shall be in accordance with the provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996.

15. Publication of SIA Report and SIMP. — The SIA Report and SIMP shall be prepared in Odia language and shall be published by way of uploading them in the website of the State Government and website of District concerned and shall be made available to the concerned Gram Panchayat, Notified Area Council, Municipality or Municipal Corporation, as the case may be, and to the offices of the District Collector, the Sub-Divisional Magistrate and the Tahasildar by the State SIA Unit and the notice of such publication shall also be affixed at some conspicuous places in the affected Village or Ward, as the case may be, in presence of two witnesses.

16. Publication of the recommendations of the Expert Group. — The recommendations of the Expert Group as constituted under Sub Section(1) of section 7 shall be prepared in Odia language and published in the same manner as laid down in rule 15.

17. Publication of decision of the State Government. — The decision of the State Government after examination of report of the Collector and the Expert Group shall be prepared in Odia language and published in the same manner as laid down in rule 15 and the State Government thereafter shall proceed for notification under sub-section (1) of section 11.

18. Publication of notification under section 11(1) and declaration under section 19(1). — In addition to the manner of publication as provided under sub-section (1) of section 11 and sub-section (4) of section 19, the preliminary notification as specified in Form H and the Declaration as specified in Form I shall be prepared in Odia language and shall be announced by beat of drum or by loud speaker at conspicuous place of every village or ward in the affected area and also by way of affixture in presence of at least two persons and where the affected area is uninhabited, such publication shall be made in the nearest inhabited village.

19. Period for completion of publication.— The publication of the preliminary notification or declaration, which are to be made under the provisions of sub-section (1) of section 11 or sub-section (4) of section 19, shall be completed in all modes as specified therein within a period not exceeding thirty days from the date of issue of such notification or declaration and the last date of such publication shall be considered as the date of the publication of the notification or declaration.

20. Copy of the preliminary notification to be sent to the Registrar or Sub-Registrar and Tahsildar. — (1) A copy of the preliminary notification shall be sent to the concerned Registrar or Sub-Registrar for complying with the provisions under sub-section (5) of section 11.

(2) Copy of such notification shall also be sent to the Tahasildar for final updation of land records as required under sub-section (5) of section 11, who shall enter the notification number in the remarks column against the notified plots to ensure that no transaction of such plots are made violating the provisions of sub-section (4) of section 11.

21. Obtaining consent.— (1) In case of acquisition of land for public purpose or public private partnership projects, private companies, as

specified in sub-section (2) of section 2, the Land Acquisition Collector concerned shall initiate the process of obtaining consent of those affected families during the SIA study.

(2) After updating the land records under rule 20, the Land Acquisition Collector shall prepare a list of all affected families of the affected area from whom consent shall be sought for and the terms and conditions, if any, proposed by the land owners and agreed to by the Requiring Body shall also be made available to the affected families.

(3) The Land Acquisition Collector shall, in consultation with the representatives of Gram Panchayats, Municipality, Notified Area Council, Municipal Corporations, as the case may be, notify the date, time and venue of the meeting of affected persons at least two weeks in advance, where the purpose of obtaining consent shall be explained to the affected persons.

(4) At the end of the meeting the affected persons shall file their consent in Form J and a photo copy of the consent duly countersigned by the Land Acquisition Collector shall be handed over to the affected families.

(5) Consent shall be obtained as per holding of land and the persons interested in the same holding of land can give combined consent.

(6) The affected families shall not be compelled to file their consent and consent once given cannot be withdrawn.

(7) Notice shall be issued by registered post to the affected families who fail to attend the meeting to submit their consent before the Land Acquisition Collector by registered post within a period of thirty days from the date of affected families meeting and non-receipt of consent within such stipulated time shall imply that the affected families has no consent to the proposed acquisition.

(8) Where acquisition is spread across multiple locations consent shall be obtained in all affected areas proposed to be included in the preliminary notification.

CHAPTER-III

22. Approximate cost of land acquisition. — The District Collector, on getting required inputs from the Administrator, R and R, shall prepare an estimate of land acquisition on the basis of the components as defined under clause (i) of section 3.

23. Valuation of structures, trees etc.— There shall be a Single Window Valuation Committee under the Chairmanship of Additional District Magistrate with Executive Engineer, Works, District Agriculture Officer, District Forest Officer, District Horticulture Officer and Soil Conservation Officer as members and Land Acquisition Collector as member Convener, which shall estimate the valuation of structures, trees etc. and submit the report to the District Collector for reference by the Land Acquisition Collector in assessing the cost of acquisition.

24. Administrative cost. — (1) The Requiring Body shall deposit such percentage of the cost of acquisition towards administrative cost as to be specified by the State Government by notification, to be revised, from time to time.

(2) The administrative cost shall be deposited by the Requiring Body with the District Collector, fifty per centum of the administrative cost shall be kept in the joint Savings Bank Account of District Collector and Land Acquisition Collector in any Scheduled Bank for meeting the day to day expenditures on account of land acquisition, rehabilitation and resettlement works as per guidelines to be issued by the State Government, from time to time, and the balance fifty per centum shall be

deposited in the Government Treasury under the appropriate receipt Head of Account.

(3) Out of fifty percentum kept in the Savings Bank Account, the District Collector shall transfer ten percentum to the State Government to meet the expenses on monitoring of land acquisition, R and R.

(4) Interest accrued on such Savings Bank Account shall be credited to the appropriate receipt Head of Account of the State Government.

25. Actual estimation of cost of land acquisition. — The District Collector shall prepare the actual estimate of cost of land acquisition taking into consideration all the components as required under the Act for the said acquisition and after following the method and manner in which the Land Acquisition, R and R award shall be made including the investment to be made for food security as required under sub-section (3) of section 10 and the Land Acquisition Collector shall then send the cost of land acquisition to the concerned Department to which the project relates and to the Requiring Body for sanction of the estimate.

26. Deposits to be made by the Requiring Body before Declaration.—
(1) Before the declaration under sub-section (1) of section 19 is made, the Requiring Body shall deposit the cost of acquisition with the District Collector and where the land is required for any private company or under Public Private Partnership mode, the Requiring Body, instead of depositing the cost assessed towards constructions under R and R Scheme, shall retain it and execute and complete the constructions as per the timeline given in the Scheme and deliver the same to the Administrator for compliance of R and R award.

(2) Where the Requiring Body is the State Government; the cost of all acquisition shall be deposited with the District Collector who shall execute

the work through available executing agencies, as deemed proper to complete the work in time.

27. Submission of draft Declaration paper.— The District Collector shall send draft Declaration papers along with the estimated cost of acquisition to the Administrative Department with advance copy thereof to the Revenue and Disaster Management Department.

28. Compensation.— (1) The compensation shall be determined and award shall be made as per the provisions laid down under sections 26 to 30 read with the First Schedule of the Act and paid to all parties whose land or other immovable property has been acquired.

(2) Compensation shall be given to agricultural labourers, tenants, share croppers or artisans and others as referred to in sub-clause (ii) of clause (c) of section 3 at the following rates, namely: —

- (a) In case of an agricultural labourer, a lump sum amount equivalent to the current minimum wages of two hundred days;
- (b) In case of the tenants and share croppers, a lump sum amount of rupees twenty five thousand per acre of the land they cultivate as tenants or share croppers;
- (c) In case of artisans who may be working in the affected area for three years prior to the acquisition of the land, a lump sum amount of Rupees twenty five thousand, per each such artisan.

(3) The payment of compensation shall be made within a period of fifteen days of passing of the awards by organizing disbursement camps and through account payee cheques or by way of electronic transfer of funds to the bank accounts of the awardees, whichever is preferable.

(4) The date of determination of the market value shall be the date on which the preliminary notification was issued under section 11.

(5) For an acquisition process that takes place in phases and where land is acquired sequentially, the base rate as calculated under section 26 shall be taken to be effective rate for all affected families to be compensated across the entire area to be acquired for the said acquisition.

29. Land Acquisition Award. — (1) The District Collector, after enquiry into and disposal of the objections, if any, raised by the interested persons in pursuance of the public notice published and given under sub-section (1) of section 21, shall make land acquisition award under section 23 in Form K.

(2) The District Collector, while calling the claims of the persons interested in the land to be acquired as per section 21, shall give a notice to the Requiring Body and the Requiring Body may express its opinion with the Collector regarding the amount of the compensation of the land to be acquired.

CHAPTER-IV

REHABILITATION AND RESETTLEMENT

30. Survey and census of affected families. — (1) The Administrator, Rehabilitation and Resettlement, under the provisions of sub-section (1) of section 16, shall conduct survey and undertake census of the affected families either by his own staff or by out-sourcing the work to any agency by way of collecting data from the Social Impact Assessment Study report and the Government records and verification of data by field survey and door to door visit of the affected families which shall be completed within a period of sixty days from the date of publication of the preliminary notification.

(2) Where the option of choosing alternative Rehabilitation and

Resettlement entitlement is available, option of the affected families shall be obtained during the survey in writing and where the affected family comprised of more than one member, the option shall be obtained from the head of the family.

31. Preparation of draft R and R Scheme.— (1)The Administrator, R and R shall prepare the draft R and R Scheme within a period of sixty days from the date of completion of survey.

(2)Where consent is involved, the draft R and R Scheme shall be prepared by taking into account the negotiated terms and conditions of R and R reached between the Requiring Body and the affected families.

32. Power, duties and responsibilities of the Administrator.— The Administrator shall exercise the powers and perform the duties and have the responsibilities as follows , namely:-

- (a) to conduct a survey and undertake a census of the affected families in the manner and within the time as provided under these rules;
- (b) to prepare a draft R and R scheme;
- (c) to publish the draft scheme by the mode provided under these rules;
- (d) to make the draft scheme available to the concerned persons and authorities;
- (e) to organize and conduct public hearings on the draft scheme;
- (f) to provide an opportunity to the Requiring Body to make suggestions and comments on the draft scheme;
- (g) to submit the draft scheme to the District Collector;
- (h) to publish the approved scheme in the affected area;
- (i) to help and assist the District Collector in preparing the scheme;
- (j) to monitor and supervise the implementation of the rehabilitation award;
- (k) to assist in post-implementation audit of R and R; and
- (l) to do any other work required to be done for R and R.

33. Public hearing on draft R and R scheme. — The Administrator, R and R or an officer authorized by him shall conduct a public hearing in the affected areas on such date, time and venue as deem fit but not earlier than fifteen days of the publication of the draft scheme and the provisions of rule 14 relating to the public hearing shall, mutatis mutandis, apply to the public hearing in this case also.

34. Publication of approved R and R Scheme in the affected area. — R and R Scheme approved by the Commissioner shall be published by the Administrator, R and R in the same manner as laid down in rule 15.

35. R and R Award. — The District Collector shall make R and R Award for each affected family in accordance with the Second Schedule of the Act or as per the negotiated agreement reached with the affected families where consent is involved and hand over family-wise awards to each affected family in Form— L.

36. R and R Committee at Project level. — (1) where the proposed acquisition is more than one hundred acres, the Government shall constitute the R and R Committee at the Project Level after publication of the preliminary notification under sub-section (1) of section 11.

(2)The member-convenor, while intimating the date , time and venue of the meeting, shall supply a copy of the draft scheme for R and R to all the members.

(3)The quorum of the meeting shall be not less than two thirds of all members.

(4)The meeting shall be held at least once in every three months.

(5) The first meeting shall be convened before award is made under section 31 and successive meetings will review the payment

entitlements and work out the displacement work plan on agreed terms.

(6) After completion of resettlement process, the R and R Committee shall suggest the name of an organisation to undertake an independent social audit at the cost payable by the District Collector.

37. Constitution of State Monitoring Committee for R and R. — (1) The State Government shall issue guidelines for the constitution and functioning of a State Monitoring Committee for reviewing and monitoring the implementation of R and R schemes or plans under the Act.

(2) The Committee shall meet at least once in every year to review and monitor implementation of R and R schemes or plans in all projects under the Act.

38. Publication of declaration. — The Secretary to Government of the Department, dealing with the subject matters of land acquisition or his authorised officer on receipt of the sanction estimate from the Department, to which the project relates, shall issue a declaration under sub-section (1) of section 19 along with the summary of draft R and R scheme.

Provided that no such declaration shall be made unless the Requiring Body has deposited the actual amount of acquisition of the land.

39. Fixation of limits for acquisition of agricultural land.—The Government in Agriculture Department shall fix up and separately specify by way of notification the limits of acquisition of irrigated Double cropped land and percentage of the limits of net sown area in any district for acquisition of the agricultural land in aggregate for all projects in that district.

40. Transfer of land and deposit of cost of reclamation for investment in agriculture.— (1) Where irrigated Double cropped land is under acquisition, the Requiring Body shall provide equal extent of alternative land to the District Collector by way of registered deed of transfer and deposit reclamation cost as assessed by the Agriculture Department for investment in agriculture.

(2) The District Collector shall, in all such cases, transfer the said land including the reclamation cost to the Agriculture Department for investment to enhance food security.

(3) The land so transferred shall be brought to the record of the Agriculture Department in the record of rights to be updated by the Tahasildar and accordingly, special mention regarding transfer of land for food security be made in the remarks column of the record of rights.

(4) Where the Requiring Body is unable to provide equal extent of land, it shall deposit the market value of the land with the District Collector who shall deposit the same in appropriate Head of Account of the Agriculture Department.

41. Prior consent of Gram Sabha.— In all cases of acquisition or alienation of any land in Scheduled Areas, consent of the concerned Gram Sabha and the Panchayats shall be obtained in Form-M before publication of notification under sub-section (1) of section 11.

42. Formation of Land Bank.— (1) The State Government may, by notification, form a Land Bank, (a Governmental entity) in charge of local Tahasildar that focuses on the conversion of the Government owned waste land, vacant, abandoned, unutilized acquired lands and tax-delinquent properties into productive use.

(2) To ensure acquisition of minimum amount of land and to facilitate utilization of unutilized public lands including land acquired earlier and not

utilized and to ensure food security, the Tahasildar shall maintain a village-wise Land Bank of all Government waste land, unutilized acquired land and land to be deposited by the Requiring Body in case of acquired irrigated double-cropped land, which shall be made available to the SIA team and expert group as per their requirement.

43. Reversion of acquired land to State.— (1) Land acquired and possession taken over but not utilized within a period of five years from the date of possession shall, in all cases, revert back to the State and deposited in the Land Bank automatically.

(2) The Requiring Body shall deliver possession of the land to the Tahasildar and on failure to deliver the possession and occupation by the Requiring Body the same shall be treated as unauthorized and the Requiring Body shall be evicted in due course of law.

(3) The Land Acquisition Officers shall furnish this information to local Tahasildars at the end of every six months in a calendar year and Tahasildars shall update the database of the Land Bank.

44. Recovery of excess amount. — For the purpose of sub section (3) of section 33 the awardee shall furnish an Indemnity Bond to the Land Acquisition Collector for refund of excess amount and in case of any default, or in case of availing benefit fraudulently as mentioned in sub section (2) of section 84 or refusal to refund, such amount shall be recovered as arrears of land revenue under the provisions of the Odisha Public Demands Recovery Act, 1962.

45. Web-based Work Flow and Management Information System (MIS) for Land Acquisition and Rehabilitation and Resettlement.— The State Government shall create a dedicated, user-friendly website that may serve as a public platform on which the entire work flow of each land acquisition

case will be hosted, beginning with the notification of the SIA and tracking each step of decision-making, implementation and audit.

46. Land to be taken on lease.— Where land is taken on lease by the State Government under section 104 on consent of the land owners such lease may be for a period of 99 years, and thereafter can be renewed.

47 Limits on extent of land for applicability of rehabilitation and resettlement. – The limits on extent of land, beyond which provisions of Rehabilitation and Resettlement under the Act shall apply in cases of purchase by a private company through negotiation with the owner of the land, shall be two hundred (200) acres of dry land or equivalent extent of irrigated or wet lands in rural areas and fifty (50) acres in urban areas subject to any further notification as may be issued by the Government, from time to time.

FORM-A

(See rule 3 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Proposal for Acquisition of Land

1. Name of Requiring Body :
2. Address of Requiring Body :
 - i) Telephone No. :
 - ii) E-mail ID :
 - iii) Fax No. :
3. Name or Location of the Project :
4. Filed under
(Section 2(1) or 2(2) (a) or 2(2) (b)):
5. Whether proposal is filed u/s 40
(If, yes, reasons thereof) :
6. Purpose of acquisition of land:
7. Project Details :
 - i) Village :
 - ii) Gram Panchayat :
 - iii) Block or Municipality or NAC :
 - iv) Tahasil :
 - v) District :
8. Whether the area is coming under : Yes No
Scheduled Area.
9. Total Area covered in the project :

Sl. No.	Name of village	Private Land (Area in Acre)			Govt. Land (Area in acre)		Total (Area in Acre)
		Private land for acquisition	Private land purchased	Private land to be purchased	For lease / alienation	Already leased out/ alienated	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total							

10. Area of irrigated multi cropped land or agricultural land other than irrigated multi cropped land:

Extent of irrigated multi cropped land (in acres)	Extent of agricultural land other than irrigated double cropped land (in acres)	Extent of land other than those mentioned in columns (1) & (2) (in acres)	Total extent of land for acquisition
(1)	(2)	(3)	(4)

11. Reasons for inclusion of agricultural and irrigated double -cropped land :

12. Land details:

District	Tahasil	Village	Khata No.	Plot No.	Total area	Area to be acquired	Boundaries of land to be acquired N/S/E/W
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Classification of land	Name of Recorded raiyat	Name of present raiyat with full address	No of residential house	No of commercial house	No. of trees	Tanks	Ponds	wells	Remarks
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)

13. Whether the certified copies of RoRs are enclosed:

14. Whether the acquisition would be done in different stages:

15. Whether the Detailed Project Report is enclosed:

16. Estimated cost of acquisition component wise as provided under clause (i) of section 3 of the Act:

17. Three copies of map showing total project area including proposed acquired area, purchased area and Government land, if any :

18. List of documents attached to the application;

We declare that any subsequent liability arising out of this land acquisition proposal will be borne by us.

Place:

Date:

**Signature of the Authorized Officer
of the Requiring Body with seal**

Form- B

(See rule 7 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Terms of Reference for the SIA

The project-specific Terms of Reference (ToR) shall include the followings, namely:-

- (1) A brief description of the project, project area and the extent of lands proposed for acquisition;
- (2) The objectives of the SIA and all the activities that must be carried out by the SIA team;
- (3) Sequencing, schedule and deadlines for deliverables with dates for the SIA process, based on the size and complexity of the project and land acquisition, and whether consent of Gram Sabhas and land owners is required to be sought;
- (4) The appropriate size and profile of the SIA team required (including field surveyors if needed) to conduct the SIA for the specific project;
- (5) A project-specific budget based on the ToR, with a clear break-up of costs for each item or activity;
- (6) The schedule for the disbursement of funds to the SIA team tied to clearly defined deliverables in the SIA process;
- (7) The processing fee will be determined based on the ToR and budget developed for each specific project and will be based on the size and location of the project and the land proposed for acquisition.

Authorized Officer of the State SIA unit

FORM – C

(See rule 8 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Government of Odisha
Revenue & Disaster Management Department

Notification

Notification No.

Date:

Whereas the State Government intends to acquire the following lands in consultation with the concerned Panchayat or Municipality or Municipal Corporation, as the case may be, at village or ward level, in the affected area and carry out a Social Impact Assessment study for public purpose.

And whereas study shall be undertaken as per the provisions of section 4 of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013;

Now, therefore, in exercise of the powers conferred by sub-rule (1) of rule 8 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015, the State Government do hereby issue this notice for carrying out SIA Study for commencement of consultation and Social Impact Assessment study on the basis of the following information, namely;-

- i) Name of project developer :
- ii) Purpose of proposed acquisition of land:
- iii) Organisation to undertake the study:
- iv) Contact details of the Organisation:
- v) Land details:

District	Tahasil	Village	Khata No.	Plot No.	Total area	Area to be acquired	Name of recorded raiyat
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

- (a) Brief description of the proposed project:
- (b) The project area and the affected areas:
- (c) Whether consent of Gram Sabhas and land owners is required?
- (d) The date of commencement of SIA.
- (e) The date of completion of SIA:

By order of the Governor
Principal Secretary to Government
Revenue and Disaster Management Department.

FORM – D

(See sub-rule (2) of rule-9 of the Odisha Right to Fair Compensation and
Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Table of Contents for SIA Report

Sl.No	Subject	Item	Contents
(1)	(2)	(3)	(4)
1	Executive Summary	i.	Name of the Project;
		ii.	Public purpose;
		iii.	Location;
		iv.	Area of the Project;
		v.	Alternatives considered;
		vi.	Social Impacts;
		vii.	Mitigation measures;
		viii.	Assessment of social costs and benefits.
2	Detailed description of the Project	i)	Background of the project, including developers background and governance;
		ii)	Management structure;
		iii)	Rationale for project including how the project fits the public purpose criteria;
		iv)	Details of project size, location, capacity, outputs, production targets, cost, risks;
		v)	Examination of alternatives;
		vi)	Phases of project construction;
		Vii)	Core design features and size and type of facilities;
		Viii)	Need for ancillary infrastructural facilities;
		ix)	Work force requirements a)temporary: b)permanent:
		x)	Details of SIA or EIA if already conducted and any technical feasibility reports;
		xi)	Applicable legislations and policies;

Sl. No	Subject	Item	Contents
(1)	(2)	(3)	(4)
3	Team composition, approach, methodology and schedule of the SIA	i)	List of all team members with qualifications;
		ii)	Description and rationale for the methodology and tools used to collect information for the SIA;
		iii)	Sampling methodology used;
		iv)	Overview of information or data sources used; (Detailed reference must be included separately in the forms)
		v)	Schedule of consultations with public representatives and key stakeholders;
		vi)	Brief description of public hearings conducted;
		vii)	Specific feedback incorporated in the report.
4	Land Assessment	i)	Maps showing area of impact under the project (not limited to land area for acquisition);
		ii)	area of impact under the proposed project, including both land to be acquired and areas that will be affected by environmental, social or other impacts of the project;
		iii)	extent and location of land proposed to be acquired for the project;
		iv)	if the land proposed for acquisition is the bare minimum requirement;
		v)	possible alternative sites for the project and their feasibility;
		vi)	whether, the land proposed for acquisition in Scheduled Area is a demonstrable last resort;
		vii)	land, if any, already purchased, alienated, leased or acquired and the intended use for each plot of land required for the project;
		viii)	the possibility of use of any public, unutilized land for the project and whether any of such land is under occupation;

Sl. No	Subject	Item	Contents
(1)	(2)	(3)	(4)
		ix)	nature of the land, present use and classification of land and if it is an agricultural land, the irrigation coverage for the said land and the cropping pattern;
		x)	whether the special provisions with respect to food security have been adhered to in the proposed land acquisition;
		xi)	size of holdings, ownership patterns, land distribution, number of residential houses, and public and private infrastructure and assets; and
		xii)	land prices and recent changes in ownership, transfer and use of lands over the last three years.
5	Estimation and enumeration (where required) of affected families and assets	i)	Enumeration of the followings types of families:- a) Families whose land or other immovable properties have been acquired; b) Land under occupation of tenants; c) Families of the Scheduled Tribes and other traditional forest dwellers who have lost any of their forest rights; d) Families of agricultural labourers, tenants or holding of usufructory right, share-croppers or artisans or who may be working in the affected area for three years prior to the acquisition of the land; e) Families who have been assigned land by the State Government or the Central Government under any of its schemes; f) Families who have been residing on any land in the urban areas for preceding three years or more prior to the acquisition of the land; g) Families indirectly impacted by the project (Gatherers of forest produce, hunters, fisher folk, boat men, etc.) h) Inventory of productive assets and significant lands
6	Socio-economic and cultural profile (affected area and resettlement site)	i)	Demographic details of the population in the project area;
		ii)	Income and poverty levels;

Sl. No	Subject	Item	Contents
(1)	(2)	(3)	(4)
		iii)	Vulnerable groups;
		iv)	Land use and livelihood:
		v)	Local economic activities:
		vi)	Factors that contribute to local livelihoods:
		vii)	Kinship patterns and social and cultural organization:
		viii)	Shrines and sacred places:
		ix)	Administrative organisations:
		x)	Political organisations:
		xi)	Community-based and civil society organisations;
		xii)	Regional dynamics and historical change processes:
		xiii)	Quality of the living environment:
7	Social impacts	i)	Framework and approach to identifying impacts:
		ii)	Description of impacts at various stages of the project cycle such as impacts on health and livelihoods and culture. For each type of impact, separate indication of whether it is a direct or indirect impact, differential impacts on different categories of affected families and where applicable cumulative impacts;
		iii)	Indicative list of impact areas include--impacts on land, livelihoods and income, physical resources, private assets, public services and utilities, health, culture and social cohesion and gender based impacts.
8	Analysis of costs and benefits and recommendation on acquisition	i)	Final conclusions on-
		ii)	Assessment of public purpose:

SI. No	Subject	Item	Contents
(1)	(2)	(3)	(4)
		iii)	Less-displacing alternatives and minimum requirements of land:
		iv)	Nature and intensity of social impacts:
		v)	Viability of the mitigation measures and extent to which mitigation measures described in the SIMP shall address the full range of social impacts and adverse social costs:

Form – E

(See sub rule (2) of rule 9 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Social Impact Management Plan

(1) Ameliorative measures required to be undertaken for addressing the impact of the project on -----

- (i) livelihood of affected families;
- (ii) public and community properties;
- (iii) assets and infrastructure particularly roads, public transport;
- (iv) drainage and sanitation;
- (v) sources of drinking water;
- (vi) sources of water for cattle;
- (vii) community ponds;
- (viii) grazing land;
- (ix) plantations;
- (x) public utilities such as post offices, fair price shops, food storage Godowns, electricity supply, health care facilities, schools and educational or training facilities, Anganwadis, children parks, places of worship, land for traditional tribal institutions and burial and cremation grounds;

- 1) Measures that the Requiring Body has stated it will introduce in the Project Proposal.
- 2) Additional measures that the Requiring Body has stated it will undertake in response to the findings of the SIA process and public hearings.

(The SIM Plan shall also mention key persons responsible for each ameliorative measure and timelines and costs for each activity.)

Form – F

(See sub rule (4) of rule-11 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Socio-economic and cultural parameters

1. Demographic details of the population in the-project area:-
 - (a) Age, sex, caste, religion;
 - (b) Literacy, health and nutritional status;
2. Poverty levels;
3. Vulnerable groups:-
 - (a) Women, (b) children, (c) the elderly,(d) women-headed households, (e) the differently abled;
4. Kinship patterns and women's role in the family;
5. Social and cultural organisation:
6. Administrative organisation:
7. Political organisation:
8. Civil society organisations and social movements:
9. Land use and livelihood:-
 - (a) Agricultural and non-agricultural use;
 - (b) Quality of land - soil, water, trees etc.;
 - (c) Livestock;
 - (d) Formal and informal work and employment;
 - (e) Household division of labour and women's work;
 - (f) Migration;
 - (g) Household income levels;
 - (h) Livelihood preferences; and
 - (i) Food security.
10. Local economic activities:-
 - (a) Formal and informal, local industries;

- (b) Access to credit;
- (c) Wage rates; and
- (d) Specific livelihood activities women are involved in.

11. Factors that contribute to local livelihoods:-

- (a) Access to natural resources;
- (b) Common property resources;
- (c) Private assets;
- (d) Roads, transportation;
- (j) Irrigation facilities;
- (k) Access to markets;
- (l) Tourist sites;
- (m) Livelihood promotion programmes; and
- (n) Co-operatives and other livelihood-related associations.

12. Quality of the living environment:-

- (a) Perceptions, aesthetic qualities, attachments and aspirations;
- (b) Settlement patterns;
- (c) Houses;
- (d) Community and civic spaces;
- (e) Sites of religious and cultural meaning;
- (f) Physical infrastructure (including water supply, sewage systems etc.);
- (g) Public service infrastructure (schools, health facilities, anganwadi centres, public distribution system);
- (h) Safety, crime, violence; and
- (i) social gathering points for women.

Form- G

(See sub rule (5) of rule 11 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Key impact areas

1. Impacts on land, livelihoods and income:---
 - (a) Level and type of employment;
 - (b) Intra-household employment patterns;
 - (c) Income levels;
 - (d) Food security;
 - (e) Standard of living;
 - (f) Access and control over productive resources;
 - (g) Economic dependency or vulnerability;
 - (h) Disruption of local economy;
 - (i) Impoverishment risks; and
 - (j) Women's access to livelihood alternatives.
2. Impacts on physical resources: ----
 - (a) Impacts on natural resources, soil, air, water, forests ; and
 - (b) Pressures on land and common property natural resources for livelihoods.
3. Impacts on private assets, public services and utilities: ---
 - (a) Capacity of existing health and education facilities;
 - (b) Capacity of housing facilities;
 - (c) Pressure on supply of local services;
 - (d) Adequacy of electrical and water supply, roads, sanitation and waste management system; and
 - (e) Impact on private assets such as bore wells, temporary sheds etc.
4. Health impacts:---
 - (a) Health impacts due to in-migration;

(b) Health impacts due to project activities with a special emphasis on impact on women's health and impact on the elderly.

5. Impacts on culture and social cohesion:----

- (a) Transformation of local political structures;
- (b) Demographic changes ;
- (c) Shifts in the economy-ecology balance ;
- (d) Impacts on the norms, beliefs, values and cultural life;
- (e) Crime and illicit activities;
- (f) Stress of dislocation ;
- (g) Impact of separation of family cohesion ; and
- (h) Violence against women

6. Impact at different stages of the project cycle:---

The type, timing, duration, and intensity of social impacts will depend on and relate closely to the stages of the project cycle. Below is an indicative list of impacts, namely:---

(a) Pre-construction phase-

- i) Interruption in the delivery of services,
- ii) Drop in productive investment,
- iii) Land speculation, and
- iv) Stress of uncertainty.

(b) Construction phase -

- i) Displacement and relocation,
- ii. Influx of migrant construction workforce , and
- iii. Health impacts on those who continue to live close to the construction site.

(c) Operation phase:-

- i) Reduction in employment opportunities compared to the construction phase,

- ii) Economic benefits of the project ,
- iii) Benefits on new infrastructure , and
- iv) New patterns of social organisation.

(d) De-commissioning phase:-

- i) Loss of economic opportunities and
- ii) Environmental degradation and its impact on livelihoods.

(e) Direct and indirect impacts:-

- i) "Direct impacts" will include all impacts that are likely to be experienced by the *affected families*;
- ii) "Indirect impacts" will include all impacts that may be experienced by those not directly affected by the acquisition of land (i.e. Direct land and livelihood losers), but those living in the project area.

f) Differential impacts:-

- (i) Impact on women, children, the elderly and the different abled ;
- (ii) Impacts identified through tools such as Gender Impact Assessment Checklists, and Vulnerability and Resilience Mapping.

g) Cumulative impacts:-

- (i) Measurable and potential impacts of other projects in the area along with the identified impacts for the project in question.
- (ii) Impact on those not directly in the project area but based locally or even regionally.

Form- H

(See rule 18 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Government of Odisha
Revenue & Disaster Management Department
Preliminary Notification

No. _____

Date _____

Whereas it appears to the Government of Odisha that a total of _____ acre land, details of which have been given below, is required to be acquired for _____ purpose. This notification is hereby given for information of the general public. Any person interested in any land which is notified hereunder may, within sixty days from the date of publication of this notification, object to the area and suitability of land proposed to be acquired, justification offered for public purpose and the findings of the Social Impact Assessment report to the Collector in writing.

1. Nature of the public purpose:
2. Name of the Requiring Body:
3. Reasons necessitating the displacement of affected persons:
4. Summary of the Social Impact Assessment Report:
5. Particulars of the Administrator appointed for the purposes of rehabilitation and resettlement:
6. Land Details:

District	Tahasil	Village	Rural / Urban	Khata No.	Plot No.	Total area	Area to be acquired	Name of recorded raiyat
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

No person shall make any transaction or cause any transaction of land specified in this preliminary notification or create any encumbrance on such land from the date of publication of this notification without prior approval of the District Collector.

Objections to the acquisition, if any may be filed by the person interested within 60 (sixty) days from the date of publication of this notification as provided under section 15 of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 before the District Collector.

By order of the Governor,

Principal Secretary to Government

Form- I

(See rule 18 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

**Government of Odisha
Revenue & Disaster Management Department
DECLARATION**

No _____

Date _____

It is hereby declared for information of all concerned that after consideration of the report of the Collector submitted in pursuance to provision of sub-section (2) of section 15 of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, the State Government is satisfied that land to an extent of _____ acres in Village _____, PS _____, District _____ as scheduled below at "A" is needed for public purpose, as defined under sub-section (1) of section 2 of the Act i.e. for _____ Project (Government / Private / PPP Project) and by _____. (Name of the project developer and Requiring Body to be clearly specified)

Preliminary notification under sub-section (1) of section 11 of the Act was published vide Notification No _____ dated _____.

It is further declared that the land to an extent of _____ acres in village _____, PS _____, District _____ as scheduled below at "B" has been identified as the resettlement area for the purpose of rehabilitation and resettlement of the displaced families.

The summary of the Rehabilitation and Resettlement Scheme applicable to the affected and displaced families relating to the land covered under this Declaration is attached herewith.

The approved Rehabilitation and Resettlement Scheme is available in the office of the Collector and Administrator R&R and has also been uploaded on the website of the District _____ (website address to be specified) and on the website of State Government (website address to be specified) for public view. A plan of the land may be inspected in the office of the Land Acquisition Officer/ _____ on any working day

Schedule-A

(Land under proposed acquisition)

District:

Tahasil:

Name of the Village	Rural / Urban	Khata no.	Plot no.	Kissam	Total area	Area to be acquired	Name of recorded raiyat
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Schedule-B

(Land identified as the resettlement area)

District:

Tahasil:

Name of the Village	Rural / Urban	Khata no.	Plot no.	Kissam	Total area	Area selected for Rehabilitation	Name of recorded raiyat
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Note:- In projects where land is acquired in stages, land covered under declarations in preceding stages to be specified along with the summary of R&R Scheme and implementation status relating to those stages.

By order of the Governor
Principal Secretary to Government / Authorised Officer
Revenue and Disaster Management Department.

Form- J

(See sub rule (4) of rule 21 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Prior written consent form

1. Name of the person(s) in whose name the land is registered:
2. Name of the spouse:
3. Name of father/ mother:
4. Address:
5. Village:
6. Gram Panchayat/Municipality/Township:
7. Tahasil:
8. District:
9. Name of other members in the family with age: (including children and adult dependents)
10. Caste Status (ST/SC/OBC/Others)
11. Extent of land owned:
12. Disputed lands if any:
13. Pattas/leases/grants, if any:
14. Any other right, including tenancy, if any:
15. Regarding acquisition of my land bearing Khata No. _____, Plot No. _____, measuring an area of Ac. _____, in Village _____ of District _____ by the government, I wish to state as follows: -
 - a) I have *read/*readout the contents of this consent form and the terms and conditions of compensation, rehabilitation and resettlement benefits and other measures committed by the Requiring Body.
 - b) *I do not agree to this acquisition.
 - c) *I agree to this acquisition.

Signature/Thumb impression of the affected
Family(s)
Date:

FORM K

(See rule 29 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Land Acquisition Award

Land Acquisition case No.:

1	Name of the project-					
2	Number and date of declaration under which the land is to be acquired					
3	Location and extent of the land in acres, the number of field plots with specification, the village in which situated					
4	Description of the land, i.e. whether fallow, cultivated, homestead, etc. if cultivated, how cultivated?					
5	Names of persons interested in the land and the nature of their respective interests.					
6	Amount allowed for the land itself, without trees, buildings etc. if any					
7	Amount allowed out of such sum as compensation for the tenants interest in the land					
8	Basis of calculation:					
9	Amount allowed for trees, houses or any other immovable things.					
10	Amount allowed for crops.					
11	Additional compensation on the market value under section 30(3) of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013) (hereinafter mentioned as the Act).					
12	Damages under section 28 of the Act.					
13	Solatium u/s 30(1) of the Act.					
14	Award under section 23 and 30 of the Act.					
15	Particulars of abatement of Government Revenue, or of the capitalized value paid, the date from which the abatement takes effect.					
16	Apportionment of the amount of compensation Area in (Ac.)	Serial No.	Name of claimants	Amount payable to each	Bank A/c No.	Remarks
17	Date on which possession was taken u/s-38(1) and 40(1) of the Act.					

If possession has been taken earlier in accordance with the provision under sub section (1) of section 40 of the Act, the number and date of the order of Government giving authority to do so may be mentioned here.

Date:

Signature

FORM L

(See rule 35 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Award for Rehabilitation and Resettlement

Land Acquisition case No.

1	Name of the project-							
2	Number and date of declaration under which the land is to be acquired							
3	Location and extent of the land in acres, the number of field plots with specification, the village in which situated							
4	Description of the housing units, transportation cost, housing allowances, annuity, employment subsistence grant, cattle shed, petty shop, one time resettlement allowances etc.							
5	Name /Names of persons interested in the land and the nature of their respective claim for rehabilitation and resettlement.							
6	Apportionment of the amount of compensation Area(in acres)	Sl. No.	Name of claimants /affected family	R&R entitlements	Bank Ac. No.	Amount payable to each	Non monetary entitlements	Remarks
					(a) House to be allotted (b) Land to be allotted (c) Fishing rights (d) Annuity (e) Employment (f) Transportation cost, (g) Housing allowances, (h) Employment (i) Subsistence grant (j) Cattle shed, (k) Petty shop, (l) One time resettlement allowances			
7	Date on which R&R entitlements given to the affected family.							

Date:

Signature

Form – M

(See rule 41 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015)

Format for Gram Sabha Resolution

We, the undersigned members of the Gram Sabha of _____ within _____ Panchayat of _____ Tahasil in District _____ wish to state that the following certification is based on the information supplied by the administration and officials. If this information is incomplete or incorrect and/or if any consent has been obtained through any use of threats, fraud or misrepresentation, it is null and void. On this basis this Gram Sabha hereby certifies that it *consents / *refuses to consent to the proposed _____ project, which will involve;

1. acquisition of _____ acres of private land,
2. transfer of _____ acres of government land to the project, and
3. transfer of _____ acres of forest land to the project.

The terms and conditions of compensation, rehabilitation and resettlements benefits and social impact mitigation measures agreed to by the Requiring Body (state the name) are attached.

The Gram Sabha also states that any consent is subject to all of its residents receiving title to all of their individual and community rights over forests and forests lands, including their titles for forest land that they have been cultivating, ownership titles for all forms of minor forest produce that they use, and titles to protect and manage their community forests. [Note: This will have to be certified by this Gram Sabha separately.]

Date:

Signatures/ thumb impressions
of Gram Sabha members

Date:

Signature of Designated District Officer
on receipt of the Resolution

N.B.- *-Strike out whichever is not applicable.

-----X-----X-----X-----X-----X-----X-----X-----X-----

By Order of the Governor

Mara Shama

Principal Secretary to Government

GOVERNMENT OF ODISHA
REVENUE AND DISASTER MANAGEMENT DEPARTMENT

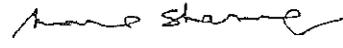
File No. R&REH-24/2015- 4246 /R&DM., dated 8-2-16

Memo No. /R&DM, dated

Copy along with soft copy forwarded to the Secretariat Gazette Cell, Commerce & Transport (Commerce) Department, Odisha / Director, Printing, Stationary and Publication, Odisha, Madhupatana, cuttack for information and necessary action.

They are requested to publish this Notification in an extra ordinary issue of Odisha Gazette immediately and copies of the Gazette Notification be forwarded to all Department of Government / all Heads of Department of Government / All RDCs / All Collectors for information and supply 100(one hundred) copies to this Department.

This Notification shall bear SRO Number as it is a statutory one.

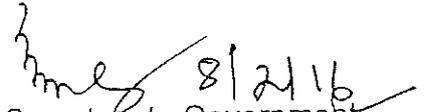


(Dr. Mona Sharma)

Principal Secretary to Government

Memo No. 4247 /R&DM, dated 8-2-16

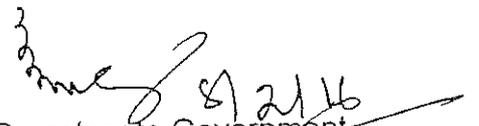
Copy forwarded to All Departments of Government / Member, Board of Revenue, Odisha, Cuttack / All Heads of Department / All RDCs / All Collectors & District Magistrates for information and necessary action.



Additional Secretary to Government

Memo No. 4248 /R&DM, dated 8-2-16

Copy forwarded to the Additional Chief Secretary to Hon'ble Chief Minister, Odisha for kind information / Private Secretary to the Hon'ble Minister, Revenue & Disaster Management, Odisha / OSD to the Chief Secretary, Odisha for kind information of Hon'ble Minister, Revenue & Disaster Management, Odisha and Chief Secretary, Odisha.



Additional Secretary to Government

Memo No. 4249 /R&DM, dated 8-2-16

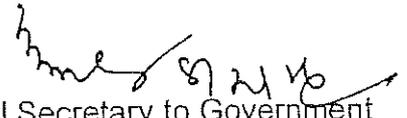
Copy forwarded to C.M.D , IDCO / C.M.D, IPICOL for information and necessary action.



Additional Secretary to Government

Memo No. 4250 /R&DM, dated 8-2-16

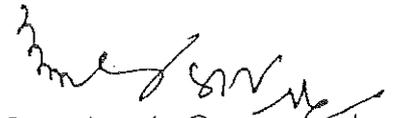
Copy forwarded to Director, Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar for information and necessary action.



Additional Secretary to Government

Memo No. 4251 /R&DM, dated 8-2-16

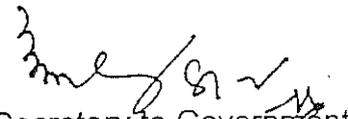
Copy forwarded to LA (A) / LA (B) / LA (C) / LR (A) / LR (B) / LRGE (A) / Registration / CH&S Branches of Revenue & Disaster Management Department for information and necessary action.



Additional Secretary to Government

Memo No. 4252 /R&DM, dated 8-2-16

Copy forwarded to Deputy Secretary, IMU Cell for information and necessary action.



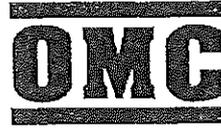
Additional Secretary to Government

Memo No. 4253 /R&DM, dated 8-2-16

Copy to Guard file of R&R Cell (5) copies.



Additional Secretary to Government



Letter No. 8564/OMC/F&E/2022
25th May, 2022

To
The Divisional Forest Officer,
Keonjhar Forest Division

Sub.: Diversion of 42.417 ha of broken up forest land and 95.00 ha of additional forest land diverted earlier in Gauli Iron Ore Mines in Barbil Tahasil in Keonjhar District of Odisha infavour of Sri Ramesh Prasad Sao now vested to M/s OMC Ltd.

Ref.: Letter No.609/Mining-16/2021 dt. 25.01.2022 by DFO, Keonjhar.

Sir,

The point wise compliance to the observation raised by DFO, Keonjhar vide letter under reference pertaining to transfer of Forest Clearance over 42.417 ha and 95.00 ha pertaining to Gauli Iron Ore Mines of OMC Ltd. is given as under:

Sl. No.	Observation by MoEF & CC	Compliance by OMC
1	It is seen from the compliance report that the user agency has not submitted the compliance to the condition as mentioned in the guideline dated 07.07.2021 of MoEF&CC, GoI for transfer of FC Clearance to the new allocate. Also the new lessee have to submit the Undertakings as regards to guideline dated 07.07.2021.	Compliance to the condition along with the undertaking as per the guideline dated 07.07.2021 of MoEF & CC, Govt. of India is enclosed herewith as Annexure-I. An undertaking has been submitted at Sl. No. 1 of Annexure-II to comply all the conditions stipulated vide Stage-II FC over 42.417 ha and 95.00 ha.
2	As per guideline dated 07.07.2021 of MoEF&CC, Govt. of India mining operation restricted to the forest area for which approval u/s 2(ii) FC Act, 1980 by the previous lessee. In this regards, you have clearly mentioned the exact forest area in which mining operation is continuing. The new lessee has not provided the compensatory afforestation land for pre-80 broken up area involved in the forest area diverted under section 2(ii) of FC Act, 1980. In this context, you will have to provide the non-forest land for CA.	Mining is continuing over 123.114 ha of approved forest area in Guali Iron Ore Mines of OMC Ltd. Stage-II Forest Clearance has been granted over 42.417 vide letter dt.14.01.2005 and over 95.00 ha vide letter dt. 06.09.2011. An area over 209.54 ha of non-forest Govt. land in villages Mayurdihi and Tentulikhunti of Telkoi Tahasil has been allotted during grant of Stage-I FC over 95.00 ha of forest land. While processing for grant of Stage-I FC over balance forest land of 194.683 ha,

Odisha Mining Corporation Ltd.
(A Gold Category State PSU)

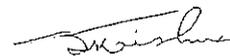
Registered Office : OMC House, Bhubaneswar - 751001, India
Tel : 0674-2377400/2377401, Fax : 0674-2396889, 2391629, www.omcltd.in
CIN : U13100OR1956SGC000313

		equal amount i.e. 194.683 ha of non-forest Govt. land has also been allotted by Collector, Koraput in village Peturu under Pottangi Tahasil of Koraput District. Hence, 404.223 ha (209.54 +194.683) of CA land has been provided as against the requirement of 332.10 ha of CA land for this project.
3	The details about the reclamation of the mined out forest area as per the approved mining plan should be submitted for compliance the point No. VI of guideline dated 07.07.2021 of MoEF&CC, Govt. of India.	Mining Plan alongwith progressive mine closure plan has been approved by IBM vide letter no. MP/A/38-ORI/BHU/2020-2021 dt.19.03.2021. Copy of the relevant pages of progressive mining plan is enclosed as Annexure-III. An undertaking has been submitted at SI. No. 2 of Annexure-II to reclaim the mined out forest area in the whole lease area as per the approved Mining Plan.
4	DGPS Survey map of the diverted forest land should be submitted.	DGPS surveyed map of the diverted forest land is enclosed as Plate-I.
5	Undertaking should be furnished to pay the additional NPV, if so determined by the Hon'ble Supreme Court of India.	An undertaking has been submitted at SI. No. 3 of Annexure-II to pay the additional NPV, if so determined by the Hon'ble Supreme Court of India.
6	After ceasing mining operation, undertake to re-grassing the mining area & any other area which may have disturbed due to mining activities & restore the land to a condition which is fit for growth of fodder, flora, fauna etc.	An undertaking has been submitted at SI. No. 4 of Annexure-II for re-grassing the mining area & any other area which may have disturbed due to mining activities & restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

It is therefore requested to kindly consider above compliance and recommend for transfer of the FC granted earlier in favour of the previous lessee pertaining to Guali Iron Ore Mines in favour of OMC Ltd.

Encl.: As above

Yours faithfully,



(Dr. Suman Krishna Sit)
General Manager (Geo)
Authorized Signatory



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Ph. No. 06766-254315, E-mail- dfo.keonjhar@odisha.gov.in

Memo No. 5107 /GF-Mining-16/2021

Dated, Keonjhar the 5th July, 2022

To

Regional Chief Conservator of Forests,
Rourkela Circle, Rourkela

Sub: Transfer of FC approval granted under the Forest (Conservation) Act, 1980 for mining leases to new lessee M/s OMC Ltd. as per the provision of the Mines and Minerals (Development and Regulation) Amendment Act, 2021 with respect of Guali Iron Ore Block under Keonjhar Forest Division, Barbil Tahasil, Dist- Keonjhar of M/s R.P. Sao.-reg.

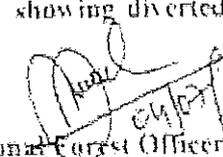
X-Sub: Transfer of Forest Clearance approval for diversion of 137.417 ha (in 1st Phase 42.417 ha + in 2nd Phase 95.00 ha) to the new allottee M/s Odisha Mining Corporation Ltd. in respect of Guali Iron Ore Block vide letter F. No. 8-96/96-FC (pt) dt 14.01.2005 & 8-96/96-FC (Pt.) dt. 06.09.2011 of MoEF, Govt. New Delhi respectively in respect of Guali Iron Ore Mine from M/s R.P. Sao. to new allottee i.e. M/s OMC Ltd.

Ref: 1. No. 8-96/96-FC (pt) dt 14.01.2005 & 06.09.2011 of MoEF, Govt. New Delhi.
2. Memo No. 12905/FE&CC dated 27.07.2021 of FE&CC Dept. Govt. of Odisha, Bhubaneswar.
3. Memo No. 17480 dated 11.10.2021 of Addl. PCCF, FD&NO, FC Act. O/o- the PCCF, Odisha, Bhubaneswar.
4. Letter No. 8564/OMC/F&E/2022 dtd 25.05.2022 of M/s OMC Ltd.

With reference to the aforementioned letters on the captioned subject, this is to intimate that, the new lessee M/s OMC Ltd. has represented for transfer of FC approval in their favour w.r.t. the aforementioned guideline. The point wise compliance to the aforementioned guidelines are furnished below:- The point wise compliance to the conditions stipulated vide letter F. No. 8-96/96-FC (pt) dt 14.01.2005 & 06.09.2011 of MoEF&CC, Govt. & point wise compliance of the conditions as mentioned dt. 07.07.2021 of MoEF&CC, Govt. for transfer of forest clearance to the new allottee i.e. M/s OMC Ltd. is sent herewith in separate sheets for favour of your kind information and necessary action.

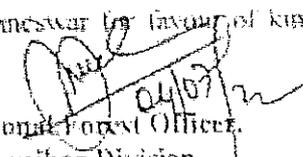
Encl: As above & Plate-I -DGPS Survey map
land, Plate-II -Geotagged photographs.

showing diverted forest


Divisional Forest Officer,
Keonjhar Division.

Memo No. 5108 /Dated 05-07-2022

Copy forwarded to the Chief Conservator of Forests, Forest Diversion and Nodal Officer, FC Act. O/o the PCCF & HoFF, Odisha, Bhubaneswar for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.



OFFICE OF THE REGIONAL CHIEF CONSERVATOR OF FORESTS, ROURKELA CIRCLE,
AT/P.O. PANPOSH, ROURKELA-769 004.

Memo No. 2216 /3F-810/2022 Date: 12-07-2022

To

The Chief Conservator of Forests
(Forest Diversion & Nodal Officer, FC Act),
O/o the Principal Chief Conservator of Forests,
Odisha, Bhubaneswar.

Sub:- Transfer of FC approval granted under the Forest (Conservation) Act, 1980 for mining lease from old lessee M/s R.P. Sao to New Lessee, M/s JSW OMC Ltd. as per the provisions of the Mines and Minerals (Development and Regulation) Amendment Act, 2021 in respect of Guali Iron Ore Block under Keonjhar Forest Division, Barbil Tahasil, Dist-Keonjhar of M/s R.P.Sao.: -reg.

X-Sub: Transfer of Forest Clearance approval for diversion of 137.417 ha (in 1st Phase 42.417 ha + in 2nd Phase 95.00 ha) to the new allocattee M/s Odisha Mining Corporation Ltd. in respect of Guali Iron Ore Block vide letter F. No.8-96/96-FC (pt) dt 14.01.2005 & 8-96/96-FC (Pt.) dt. 06.09.2011 of MoEF, GoI, New Delhi respectively in respect of Guali Iron Ore Mine from M/s R.P. Sao. to new allottee i.e. M/s OMC Ltd.

Ref: 1. MoEF & CC Guideline F. No.11-112/2020-FC (Pt) dated 07.07.2021.
2. No.8-96/96-FC (pt) dtd 14.01.2005 & 06.09.2011 of MoEF, GoI, New Delhi.
3. Memo No. 12905/FE&CC dated 27.07.2021 of FE&CC Deptt. Govt. of Odisha, Bhubaneswar.
4. Your Memo No.17480 Dtd.11.10.2021.
5. Memo No. 5108 Dtd. 05.07.2022 of DFO, Keonjhar Division.

With reference to the aforementioned Memos on the captioned subject, the Divisional Forest Officer, Keonjhar Division vide his Memo No. 5107 Dtd.05.07.2022 addressed to the undersigned and copy thereof endorsed to you in the next Memo of even date has intimated that the new lessee M/s OMC Ltd. has represented for transfer of FC approval in their favour w.r.t. MoEF & CC Guideline F. No.11-112/2020-FC (Pt) dated 07.07.2021.

The point-wise compliances as per the guidelines issued vide F.No.FC-11/112/2020-FC (Pt) dated 07.07.2021 of Govt. of India MoEF & CC, New Delhi for transfer of forest clearance to the new Lessee submitted by the DFO, Keonjhar Division are as follows:-

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Point wise compliance report of the conditions as mentioned in the guideline dated 07.07.2021 of MoEF & CC, GoI for transfer of forest clearance to the new allottee, M/s JSW Steel Ltd.

- i. Complete compliance of such terms and conditions as stipulated in the approval granted previously under the FCA-1980, and rules and guidelines framed there under in respect of the concerned mining lease has been made. The non-compliance of conditions, if any, stipulated in the approval granted to the erstwhile agency under FCA-1980, which were required to be complied before handing over the forest land to such agency, shall be transferred as liabilities to the new allottee, and in such case, complete compliance of such conditions shall be made prior to handing over of forest land to the new allottee. For the remaining conditions, the new allottee will make an undertaking to comply with, before handing over the forest land. It is clarified that in case of violation of any of the conditions which was done previous allottee and which constituted an offence under the FCA-1980, the penal clauses will be invoked against the previous allottee only and not against the new allottee.*

The DFO, Keonjhar Division has submitted the compliance report of the condition stipulated in the Stage-II approval order granted in favour of the previous lessee which are enclosed herewith vide Annexure-I & II. Further, the new lessee i.e. M/s Odisha Mining Corporation Ltd. has submitted an undertaking to comply all conditions of the vested Forest Clearance which is enclosed herewith vide Sl. No. 1 of Annexure-A.

- ii. Approval under FCA-1980 was valid on the date of expiry of previous lease.*

As reported by the DFO, Keonjhar Division, the previous lease period was valid till dt 31.03.2020 as per the grant order No. 3714 dt. 27.04.2015 by the Steel & Mines Dept., Govt. of Odisha.

The Forest Clearance (FC) granted by MoEF vide F. No.8-96/96-FC (pt) dt 14.01.2005 over 42.417 ha stipulates [Condition No.15]] that the period shall be co-terminus with the current lease granted under MMDR Act, 1957. Similarly the FC granted vide letter no. 8-96/96-FC (Pt.) dt. 06.09.2011 over 95.00 ha stipulates [Condition No.2 (vi)] that the period of diversion of the approval shall be twenty years. Hence, the lease expired on dt 31.03.2020.

Therefore, approval under FCA-1980 was valid on the date of expiry of previous lease. The Director of Mines has informed that, the said mining lease has been allotted to the new lessee i.e. M/s Odisha Mining Corporation Ltd. for a period of 10 years.

- iii. Mining operation will be restricted to the forest area for which approval under section-2 (ii) of the FC Act,1980 has been obtained by the erstwhile user agency. No non-forest use of such forest lands falling within the lease shall be allowed, for which approval under section 2 (ii) has not been obtained by the State Government. Mining in such areas may be allowed only after obtaining prior approval of the Central Government under Section 2 (ii) of the FCA-1980.*

As reported by the DFO, Keonjhar Division, the Forest Clearance has been approved under section 2(ii) of the FC Act over an area of 137.417ha of forest land (in 1st Phase 42.417ha + in 2nd Phase 95.00 ha) vide F. No. 8-96/96-FC dated 14.01.2005&06.09.2011 of MoEF, GoI respectively. As per Vesting Order No.324/SM dated 11.01.2021 of Steel and Mines Department, Govt. of Odisha the total mining lease is 358.258 ha (as per DGPS) / 365.026 ha (as per RoR). The total lease area over 358.258 as per DGPS consists of 332.100 ha of forest land and 26.158 of Non-forest land.

12/1

The new lessee i.e. M/s Odisha Mining Corporation Ltd. has submitted an Undertaking at **SI No. 2 of Annexure-A** to restrict the mining activities within the approved forest clearance area. For undertaking mining beyond the approved area prior permission from Central Government under Section 2 (ii) of the FCA 1980 will be obtained by them.

iv. The State Government shall ensure that the amount of Net Present Value, Safety Zone Plantation and Compensatory Afforestation (CA), if not deposited earlier, has been deposited prior to handing over of the forest land to the new allottee. Also, in case the CA land has not been made available previously, the forest land shall be handed over to the new allottee only after the corresponding CA land has been accepted by the competent authority as per the extant procedures for acceptance of CA lands for a new proposal.

The DFO, Keonjhar Division has reported that,

1. The previous lessee i.e. M/s R.P. Sao has deposited NPV over entire forest land over 338.477ha involved in the mining lease as per the decision of the Hon^{ble} Supreme Court. A sum of total Rs.24,70,88,210/- (Rs. 2,46,01,860/- + Rs.13,11,72,040/- + Rs.3,99,51,510/- + Rs.5,13,62,800/-) has been deposited by the ex-lessee vide D.D No. 466544 dt.19.09.2004, D.D No. 023888 dt.03.03.2010, DD No.011038 dt.14.06.2010 & through RTGS vide UTR No.UTIBR52018060400358995dated 04.06.2018 respectively in CAMPA Account.
2. Non-forest Govt. land over 209.540 ha had been identified in 2 Villages viz. Mayurdihi 207.3670 ha and in village-Tentulikhunti over 2.5600 ha under TelkoiTahasil of Keonjhar District. The draft proposal for declaration of PF Notification has been submitted to the Addl. PCCF, FD&NO, FC Act, O/o- the PCCF, Odisha, Bhubaneswar vide memo No. 1110 dated 17.12.2018 of the DFO, Keonjhar. PF notification has not yet been done. The user agency had deposited Rs.1,22,94,000/- towards CA in Ad-hoc CAMPA account. CA plantation over 207.3670 ha & 2.56 ha have been carried out during the year 2013-14.
3. Degraded forest land of 84.834 ha had been identified in Atei RF for raising of PCA. The ex- lessee had deposited Rs.13,73,500/- towards PCA in Ad-hoc CAMPA account. Plantation has been carried out over 50.00 ha & 34.8340 ha during the year 2008-09 & 2011-12 respectively. Further degraded forest land over 24.24 ha was identified in Samakoi RF under Telkoi Range towards one and half time of the safety zone area and the Safety Zone Scheme & 1.5 time SZ Scheme were prepared and technically approved by the RCCF, Rourkela Circle, Rourkela with a total financial outlay of Rs.4,65,000/- & Rs. 6,60,000/- respectively. The Ex-lessee i.e. M/s R.P. Sao had deposited the approved amount. The 1.5 times Safety Zone plantation over 24.24 ha in Samakoi RF under Telkoi Range has been carried out during the year 2011-12.
4. The new lessee M/s Odisha Mining Corporation Ltd. has also deposited advance lump sum amount of Rs.25,38,57,750/-@7.5 lakhs/ ha towards compensatory levies in Ad-hoc CAMPA Account vide UTR No. SBIN521012176323 on dt.12.01.2021.(Copy of Online Receipt is enclosed with Compliance report) and the same is to be adjusted later over 338.477ha forest land(57.579 ha RF + 210.538 ha Revenue Forest + 70.36 ha Sabik Forest) involved in the project area as per RoR.

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v. *Mining operations and other activities shall be carried out as per the land-use allowed in the approval under the FCA-1980. Any change in the land use on account of any valid reason shall be effected with the prior approval of the Central Government.*

As reported by the DFO, Keonjhar Division, the user agency has intimated that, mining operation is being done as per the approved Mining Plan and as per the land use allowed in the approval under FCA, 1980. In case of any change in land use, prior approval of the Central Government will be obtained in due process by the User Agency.
An undertaking to this effect furnished by the user agency is enclosed at SI No.3 of Annexure-A. Copy of approved mining plan dated 19.03.2021 is enclosed vide Annexure-III.

vi. *Reclamation of the mined-out forest area in the whole lease area as per the approved mining plan shall be an obligatory condition for the new allottee.*

As reported by the DFO, Keonjhar Division, the user agency has intimated that, as per the approved mining plan, Reclamation of the mined out forest area in the whole lease area is being done. Further, the user agency has furnished an undertaking at SI No. 4 of Annexure-A to carry out concurrent reclamation plan as per the approved mining plan.

vii. *Transfer fee as prescribed in the guidelines incorporated in the Handbook of Forest (Conservation) Act,1980, shall be realized from the new allottee and deposited into the account of CAMPA of the State concerned.*

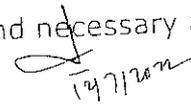
As reported by the DFO, Keonjhar Division, the user agency had been demanded to deposit a sum of Rs.1,00,000/- towards transfer fee vide his office letter No. 5012 dated 25.08.2021. The user agency has deposited a sum of Rs.1,00,000/- in the Ad-hoc CAMPA account towards transfer fee vide UTR No.UBINJ21303687755 on dated 30.10.2021. The copy of the payment is enclosed as Annexure-IV.

viii. *Transfer of approvals to new agency may be accorded by the concerned State Government /UT Administration subject to fulfillment of conditions/provisions stipulated in the relevant guidelines of the Ministry.*

As reported by the DFO, Keonjhar Division, the user agency has submitted an undertaking to this effect at SI No. 5 of Annexure-A.

This is for favour of your kind information and necessary action.

Encl.:- As above.


Regional Chief Conservator of Forests,
Rourkela Circle.

Memo No.

Date:

Copy forwarded to the Divisional Forest Officer, Keonjhar Division for information and necessary action with reference to his Memo No.5107 Dtd.05.07.2022.

Regional Chief Conservator of Forests,
Rourkela Circle



STATE FOREST HEADQUATERS
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS & HOFF
PLOT NO.GD-2/12, ARANYA BHAWAN, CHANDRASEKHARPUR
BHUBANESWAR-751023

Memo No. 15847 /9F(MG)68/2022
Dated, Bhubaneswar, the 12th August, 2022

To
The Regional Chief Conservator of Forests
Rourkela Circle

Sub: Transfer of FC approval granted under Forest (Conservation) Act, 1980 for mining lease from old lessee M/s R.P. Sao to new lessee M/s OMC Ltd as per the provision of the mines and minerals (Development & Regulation) Amendment Act, 2021 in respect of Guali Iron Ore Block under Keonjhar Forest Division-reg.

Ref:- Your Memo No.2216 dated 12.07.2022.

You have submitted the proposal for transfer of FC granted in favour of M/s R.P. Sao in respect of Guali Iron Ore Mines to M/s OMC Ltd. vide your memo under reference.

On scrutiny of the proposal with the related files of diversion of forest land in favour of M/s R.P. Sao, it is noticed that the land schedule of the mining lease granted to M/s OMC Ltd vide letter No.283/SM, Bhubaneswar dated 11.01.2021 differs from the land schedule of the mining lease granted to M/s R.P. Sao.

42.417 ha pre-80 broken up revenue forest land was diverted vide letter No.8-96/96-FC dated 14.01.2005 and 95.00 ha forest land was diverted vide letter No.8-96/96-FC (pt) dated 06.09.2011 by GoI, MoEF & CC in favour of M/s R.P. Sao within the mining lease granted to M/s R.P. Sao. These forest clearances are to be transferred to the new allottee. The DFO, Keonjhar division is to compare the land schedule of diverted forest land in the ML allotted to M/s R.P. Sao with the land schedule of new ML area allotted to M/s OMC Ltd and find out the eligible forest area for transfer of FC to the new allottee.

Further, the DGPS map enclosed with the proposal shows the forest area proposed for diversion, but details of earlier diverted area has not been shown in the map.

You are, therefore requested to insist upon the DFO, Keonjhar division to comply the above mentioned observations and resubmit the proposal. The proposal submitted vide your memo under reference is returned herewith.

Encl:-Asabove.

Conservator of Forests (Nodal)

Memo No.

/Dt.

Copy forwarded to the Divisional Forest Officer, Keonjhar Forest Division for information and necessary action with reference to Memo No.2217 dated 12.07.2022 of the RCCF, Rourkela Circle.

Conservator of Forests (Nodal)



Letter No. 14342/OMC/F&E/2022
30th August, 2022

To

The Divisional Forest Officer,
Keonjhar Forest Division

Sub.: Transfer of FC approval granted under Forest (Conservation) Act, 1980 for mining lease from old lessee, M/s R.P. Sao to new lessee M/s OMC Ltd. as per the provision of the Mines and Minerals (Development & Regulation) Amendment Act, 2021 in respect of Guali Iron Ore Block under Keonjhar Forest Division.

Ref.: Letter No. 6458/Mining-16/2021 dt. 24.08.2022 by DFO, Keonjhar.

Sir

The State Government vide their letter No. 12437/MG dt. 22.10.1986 executed the Mining lease over 365.026 ha in favour of Sri Ramesh Prasad Sao on dt. 15.11.1986 pertaining to Guali Iron Ore Mines during 1st renewal period. The same lease after termination on 31.03.2020 has been granted infavour of OMC vide letter no. 358/SM dt. 12.01.2021 over an area of 358.258 Ha (as per DGPS)/365.026 ha (as per RoR) and mining Lease deed was executed on dt 12.01.2021. A comparative statement of the land details of the executed mining lease in favour of Sri Ramesh Prasad Sao and that of OMC is given as under:

Village wise Comparative abstract of land schedule of the ML & executed in favour of Ex-Lessee and Present Lessee in Ha.												
Name of Village	RF		Revenue Forest		Forest as on 25.10.80		Treated Forest		Non-Forest		Grand Total	
	Ex-Lessee	OMC	Ex-Lessee	OMC	Ex-Lessee	OMC	Ex-Lessee	OMC	Ex-Lessee	OMC	Ex-Lessee	OMC
Topadihi	-	-	134.093	103.843	Nil	73.280	Nil	-	17.871	16.646	151.964	194.309
Panduliposi	-	-	-	43.158	Nil	5.778	Nil	9.118	12.986	8.059	12.986	66.113
Laharpada	-	-	-	-	Nil	3.372	Nil	-	1.004	1.442	1.004	4.814
Guali	-	-	66.591	50.356	Nil	7.008	Nil	-	0.526	0.011	67.117	57.375
Rugudihi	-	-	-	4.660	Nil	0.324	Nil	-	1.400	-	1.400	4.990
Sidhamatha RF	130.555	30.657	-	-	Nil	-	Nil	-	-	-	130.555	30.657
Total	130.555	30.657	200.684	202.023	Nil	90.302	Nil	9.118	33.787	26.158	365.026	358.258

The mismatch in land schedule can be attributed to the DGPS survey. However, OMC is adhering to the land schedule executed in their favour over 358.258 ha out of which the forest area considered is to the tune of 332.100 ha.

The comparative statement of the village wise and plot wise land schedule of new ML area allotted in favour of OMC and that of diverted forest area of 137.416 ha of ML area allotted in favour of M/s RP Sao is given as under:

Name of the Village	Village wise land schedule			
	Diverted forest area allotted in favour of M/s R.P.Sao		New ML area of OMC	
	Plot No.	Area in Ha	Plot No.	Area in Ha
Guali	1/503	3.363	1/503	1.287
Guali	1/522	0.237	1/522	2.329
Guali	1/520	4.204	1/520	2.72
Guali	1/519	9.327	1/519	9.166

Guali	1/516	0.048	1/516	3.331
Guali	-	-	1/515	1.301
Guali	1/514	9.184	1/514	9.184
Guali	1	6.692	1	6.569
Pandulipasi	3/300	6.444	3/300	1.727
Rugudihi	1/609	2.228	1/609	1.769
Rugudihi	-	-	1/610	0.002
Rugudihi	-	-	138	0.006
Rugudihi	-	-	137	0.001
Rugudihi	-	-	137	0.001
Tapadihi	-	-	134/585	0.243
Tapadihi	-	-	134/584	0.057
Tapadihi	-	-	134/583	0.031
Tapadihi	-	-	134/582	0.024
Tapadihi	-	-	134/580	1.018
Tapadihi	-	-	115	3.928
Tapadihi	61	15.835	61	15.535
Tapadihi	114	13.730	114	12.946
Tapadihi	61/650	0.622	61/650	0.622
Tapadihi	61/306	12.866	61/306	12.866
Tapadihi	61/305	13.054	61/305	13.054
Tapadihi	61/304	21.781	61/304	21.782
Tapadihi	61/303	13.270	61/303	11.38
Tapadihi	61/311	2.311	61/311	2.149
Tapadihi	-	-	111	0.025
Tapadihi	83	1.730	83	1.73
Tapadihi	65	0.333	65	0.333
Pandulipasi	301	0.157		
Total		137.416		137.416

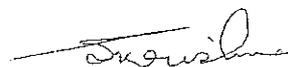
It is evident from the above that the eligible forest area for transfer of FC is 137.416 ha. Besides, the Steel & Mines Department vide letter no. 324/SM dt. 11.01.2021 has issued vesting order over 358.058 ha in which 137.417 ha is forest land (**Annexure-I**).

The DGPS survey map issued by ORSAC indicating the earlier diverted forest land over 137.417 ha is enclosed as **Plate-I** for kind reference.

It is therefore requested to kindly consider the above compliance and recommend to higher quarter for further necessary action.

An early action is highly solicited.

Yours faithfully,



Dr. Suman Krishna Sit
General Manager (Geo)
Authorized Signatory

Memo No./OMC/F&E/2022 30th August, 2022

Copy to the Regional Manager, Barbil/Manager (Mining), Guali Iron Ore Mines for kind information and necessary action.

General Manager (Geo)
Authorized Signatory

CAMPA format b/c for stage-II clearance
 of 42.417 ha in 2005 & 95 Ha in 2011.
 Condition No. (Vett) & (XVc)

PROFORMA FOR VERIFICATION OF DEPOSITS IN COMPENSATORY AFFORESTATION FUND

1.	Name of Office	Bhubaneswar
2.	State/District/Forest Division to which the proposal relates	Odisha/Keonjhar/Keonjhar Forest Division
3.	Name of User Agency, nature of proposal	M/s R.P. Sao (now Mining lease is allotted to M/s Odisha Mining Corporation Limited) (A Govt. of Odisha Undertaking),
4.	Nature and category of proposal	Mining
5.	Proposal number	Guali Iron Ore Mines
6.	Extent of forest area involved	137.417 ha (42.417 ha + 95.00 ha)
7.	Whether original or extension	Extension
8.	If extension of lease, please clarify if proposal involves additional forest area and if so, specify	-
9.	Date of 1 st Stage clearance	1 st Phase 42.417 ha of part forest area approved vide No. B-96/96-FC dt. 14.01.2005. 2 nd phase 95.00 ha of part forest area approved vide No. B-96/96-FC (Pt.) dt. 06.09.2011.
10.	Extent of CAMPA charges, head wise viz.:	
	(a) Compensatory Afforestation	Rs. 1,22,94,000/-
	(b) Additional Compensatory Afforestation	Nil
	(c) Penal Compensatory Afforestation	Rs. 13,73,500/-
	(d) Catchment Area Treatment	Nil
	(e) Wildlife Management Plan	
	i) Site Specific Wildlife Conservation Plan	Rs. 2,71,80,856/-
	ii) Regional Wildlife Management Plan	Rs. 73,00,520/-
	(f) Additional charges for diversion of area falling under notified/protected areas	Nil
	(g) Net Present Value	Rs. 19,57,25,410/- (Rs. 2,46,01,860/- + Rs. 13,11,72,040/- + Rs. 3,99,51,510/-)
	(h) Any other charges/levies (Please specify)	
	i) Penal NPV	Nil
	ii) Safety Zone	Rs. 4,65,000/-
	iii) 1.5 times Safety Zone	Rs. 6,60,000/-
	iv) Cost for protection and maintenance of remaining forest land.	Rs. 80,15,000/-
	Total	Rs. 25,30,14,286/-
11.	Whether payment made through challan or otherwise. In case of online payment, details of challan.	

12. Sl No.	Details of deposits Type of deposit {NPV/CA/ IWMP/ Others (specify)}	Whether by RTGS/DD/ NEFT (Specify)	UTR/ DD No.	Amount deposited (Rs.)	Date of deposit	Name of Bank from which amount transferred to account of CAF	Bank Account of CAF managed by CAMPA in which fund deposited
i)	NPV	DD	100949	2,46,01,860.00	03.01.2008 10.04	State Bank of India, Keonjhar Branch	CAMPA A/c No. 1585 of Corporation Bank, CGO Complex, New Delhi
		DD	023888	13,11,72,040.00	03.03.2010	IndusInd Bank, Kolkata	A/c No. 344901010070128 of Union Bank of India, Sunder Nagar, New Delhi.
		DD	011038	3,99,51,510.00	14.06.2010	Axis Bank Ltd., Princo Anwar Shah Road, Kolkata	CAF, Orissa A/c No. 1585 of Corporation Bank, CGO Complex, New Delhi.
ii)	Compensatory Afforestation over 209.54 ha	RTGS	SBINH1154317190	1,22,94,000.00	23.02.2011	A/c No. 11291630721 State Bank of India, Joda Branch, Keonjhar	CAMPA A/c No. 344901010070194 of Union Bank of India, Sunder Nagar, New Delhi.
iii)	Cost for protection and maintenance of remaining forest land	RTGS	SBINH11054316740	80,15,000.00	23.02.2011	A/c No. 11291630721 State Bank of India, Joda Branch, Keonjhar	CAMPA A/c No. 344901010070194 of Union Bank of India, Sunder Nagar, New Delhi.
iv)	Cost of wildlife conservation plan	DD	023887	2,71,80,856.00	03.03.2010	IndusInd Bank, Kolkata	CAF, Orissa A/c No. 1585 of Corporation Bank, CGO Complex, New Delhi.
v)	Cost of Regional wildlife Management Plan Penal CA	DD	484878	73,00,520.00	04.12.2008	IndusInd Bank, Barbil	CAF, Orissa A/c No. 1585 of Corporation Bank, CGO Complex, New Delhi.
vi)		Challan	Challan No. 1	13,73,500.00	16.11.2004	Challan details are attached	CAF, Orissa A/c No. 1585 of Corporation Bank, CGO Complex, New Delhi.
vii)	Safety Zone	Challan	Challan No. 1	4,65,000.00	16.11.2004	Challan details are attached	CAF, Orissa A/c No. 1585 of Corporation Bank, CGO Complex, New Delhi.
viii)	1.5 Times SZ	Challan	Challan No. 1	6,60,000.00	16.11.2004	Challan details are attached	CAF, Orissa A/c No. 1585 of Corporation Bank, CGO Complex, New Delhi.
Gross Total				253014286.00			

Chief Conservator of Forests (Nodal)
Odisha

Divisional Forest Officer
Keonjhar Forest Division

Date: 11-3-2022
Place: Keonjhar

438 111

e-mail:- barbiltahasil.office@gmail.com

OFFICE OF THE TAHASILDAR, BARBIL

No. 1076 /Date 22-03-2021

To

The Regional Manager,
M/S OMC Limited, Barbil.

Sub: - Certification of land schedule as on 25.10.1980 involved in the Project both (forest & non-forest) as per Govt. records for diversion of forest land in respect of Guali Iron Ore Block of M/s OMC Ltd.

Ref:- Your letter No.259/OMC/ROB/2021, dated 25.01.2021

Sir,

With reference to the letter on the subject cited above, I am to certify that the status of land schedule is enclosed herewith as per Govt. Records as on 25.10.1980 as per Govt. Order No.4822/dated 12.02.2015 of Chief Secretary Odisha as per the land status furnished by the Addl.Sub-Collector (Settlement) Keonjhar vide the letter No.54/Dt. 18.02.2021 and letter No.17/RR, dated 18.03.2021 of Addl.Collector, Dist. Record Room, Keonjhar and same status of the land is verified by Amin & Record Keeper in this office.

This is for favour of your information and necessary action.

Enclosure- As above.

Yours faithfully,

[Handwritten Signature]
Tahasildar, Barbil.
22/3/2021

[Handwritten Signature]
Suman Krishna Sita
General Manager(Geo)
Power of Attorney Holder
Odisha Mining Corporation Ltd.
Bhubaneswar

Name of the village	Plot No.	Khata No.	Kissam (After 25.10.1980)	Kissam (Before 25.10.1980)	Area (in Acres)	DGPS Area (in Ha)	Remarks
Tapadidi	112/553	126	Jungle	Jungle	0.410	0.135	Revenue Forest
	114	126	Jungle	Jungle	37.450	15.141	
	17/300	126	Jungle	Jungle	3.094	1.252	
	61/303	124	Gramya Jungle	Jungle	32.791	13.270	
	61/304	126	Jungle	Jungle	53.750	21.781	
	61/305	126	Jungle	Jungle	31.930	13.054	
	61/306	126	Jungle	Jungle	32.500	12.866	
	61/311	126	Jungle	Jungle	8.909	3.606	
	123/628	124	Jungle	Jungle	0.273	0.111	
	61	126	Jungle	Jungle	39.250	15.835	
	115/641	126	Jungle	Jungle	0.044	0.018	
	115/643	126	Jungle	Jungle	0.019	0.008	
	65	126	Jungle	Jungle	0.840	0.333	
	61/650	126	Jungle	Jungle	1.500	0.622	
83	126	Jungle	Jungle	13.820	5.811		
Sub-Total					256.580	103.843	

ABSTRACT OF THE LAND SCHEDULE OVER 300.8913HA. OF FOREST LAND (AS PER HAL & SABIK RECORD)

Name of the village	FOREST LAND IN HECT.				
	R.F.	Revenue Forest	Forest land as on 25.10.1980 (Sabik)	Treated Forest	Total
Guali	Nil	50.356	7.008	-	57.364
Laharapada	Nil	-	3.372	-	3.372
Pandulipasi	Nil	43.158	5.778	9.118	58.054
Rugudi Dihi	Nil	4.666	0.324	-	4.990
Tapadidi	Nil	103.843	73.820	-	177.663
Sidhamatha R.F.	30.657	-	-	-	30.657
Total	30.657	202.023	90.302	9.118	332.100


 Revenue Inspector Forester
 REVENUE INSPECTOR
 BHADRASAHI


 Range Officer
 Forest Range Officer
 BARBIL


 Tahasildar
 Barbil
TAHASILDAR
BARBIL


 Buman Krishna Sit
 General Manager(Geo)
 Power of Attorney Holder
 Mining Corporation Ltd
 Bhubaneswar

GUALI IRON ORE BLOCK

Over an area of 358.258 Ha (as per DGPS)/ 365.026 Ha (as per RoR)
in Village Guali, Panduliposi etc under Barbil Tahasil of Keonjhar district

MINING PLAN

(For the period from 2020-21 to 2024-25)

Under Rule 16 (1) of Minerals (Other than Atomic and Hydro Carbons Energy
Minerals) Concession Rule, 2016

PROGRESSIVE MINE CLOSURE PLAN

Under Rule 23 of Mineral Conservation and Development Rules, 2017

Lessee Details	Odisha Mining Corporation Limited OMC House, Bhubaneswar - 751001, District: Khurda, State: Odisha E-mail: info@orissamining.com Tel: 0674-2377400 & 2377401, Fax No: (0674) 2580145/020
ML Area	Lease Area: 358.258 Ha (as per DGPS)/ 365.026 Ha (as per RoR) Govt Land: 88.434 Ha Forest Land: 229.524 Ha Pvt. Land: 40.3 Ha
Category of Mine: Fully Mechanised (FM)	Date of Execution of the ML: 12.01.2021 Date of Expiry of the ML: 11.01.2031 Lease Period: 10 Years
Registration no under Rule 45 of MCDR 2017: IBM/4269/2011	
Mine Code No: 30ORI08126	

TEXT

Prepared by Qualified Persons

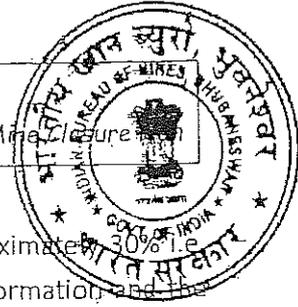
Sri Pradip Kumar Sahoo, B. Tech. in Mining Engineering
Sri Subrat Kumar Behera, M. Sc & M. Phil in Geology



Odisha Mining Corporation Limited
OMC House, Bhubaneswar - 751001,

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Suman Mishra Sit
General Manager(Geo)
Power of Attorney Holder
Odisha Mining Corporation L
Bhubaneswar



Out of the total 9.5 Million CuM of waste generated up to conceptual, approximately 30% i.e. 2.85 Million CuM will be utilized for road formation, maintenance and bund formation, and the remaining 6.65 Million CuM shall be utilized for development and remaining waste will be dumped at proposed dump location during the conceptual period.

The garland drains will be dug around 1 m beneath the adjoining contour level at the lower peripheral areas of the dump. The width of the drains shall be around 1.5 m. A series of settling pits will be provided to arrest the wash-off solid particles.

The retaining walls will be of 1.5m height and 1.2 m width at the top and around 1.5m at the base. Besides, it is also proposed to stabilize the existing dead waste dump with bio-degradable coir geo textile made of coconut fibre or husk. It facilitates new vegetation by absorbing water and preventing topsoil from drying out. Seeding or plantation is done after blanketing the coir matting on the dump slope. They provide dump soil good support allowing natural vegetation to become established.

The OB dumps areas will be compacted and afforestation will be carried out on the terraces as well as along the slopes after spreading a layer of top soil over it before rehabilitation. The location of the external dump is marked on Conceptual Plan. Refer Plate No 08. Top soil being generated during mining shall be used for rehabilitation & also for avenue plantation.

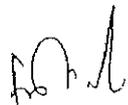
Waste dumps will be afforested/ re-grassed to check wash off. Waste dumps will be guarded with retaining walls at their toes along the lower contours. Following the retaining wall a garland drain will be developed for carrying water to the natural drainage system. Settling pits have also been proposed in the drains to arrest solid particles.

Environmental Monitoring:

Noise, air, water and other environmental parameters will be monitored periodically to have a close check on the environmental parameters. Spraying of water on haul roads, use of wet drilling techniques & prevention of vibration by utilization of minimum quantity of explosive per delay will be carried out.

Land Use Planning:

The land use pattern at the start of the Plan period, at the end of first five years and at the end of conceptual period is given in the below table.


Pradip Ku Sahoo

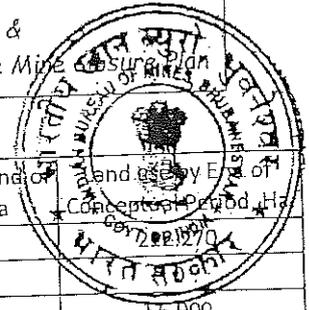

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Odisha Mining Corporation L
Bhubaneswar



ODISHA
NEW OPPORTUNITIES

Guali Iron Ore Block
Odisha Mining Corporation Ltd

Mining Plan &
Progressive Mine Closure Plan



Sl No	Description	Area put to use at the start of plan period, Ha	Total area at the end of Plan Period, Ha	Area under Mining at the end of Conceptual Period, Ha
1	Area under Mining **	50.461	115.961	
2	Storage of topsoil	0.093	0.00	56.900
3	Waste Dump Site	6.959	21.532	19.190
4	Mineral storage	42.243	66.388	
5	Infrastructure, Workshop, admin Building etc)	4.650	5.166	4.650
6	Roads	32.445	14.995	10.850
7	Railways	0	0	0
8	Safety Zone/Green belt *	14.563	14.342	6.469
9	Tailing pond	0	0	0
10	Effluent Treatment Plant	0	0	0
11	Mineral Separation Plant (Crushing, Screening Unit & Slurry Pipeline)	2.706	24.000	29.380
12	Township area	0	0	0
13	Forest Area (Diverted) not used by earlier lessee	40.572	0	0
14	Area retained for Plantation	0	0	0.763
Total area of utilization		194.692	262.384	340.472
13	Other Unutilized Area	163.566	95.874	17.786
Grand Total		358.258	358.258	358.258

* An area 0.221Ha safety zone is converted to road for proposed/existing entry point of Mining Lease. Thus the safety zone becomes 14.342Ha (14.563 - 0.221). During conceptual period 0.047 Ha will be converted to road and 7.826 Ha to Mineral separation plant & ore stack yard. Thus the safety zone will be 6.469 Ha.

** Out of the 212.27 Ha, mining will be 155.17 Ha and the remaining 57.10 Ha will be area under future exploration which subsequently will be converted to mining and allied activities.


Pradip Ku Sahoo

10/01/2020


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Guali Iron Ore Block
Odisha Mining Corporation Ltd

Mining Plan &
Progressive Mine Closure Plan



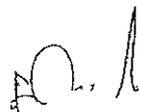
Past Mining Land-Use

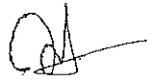
Sl No	Land Use	Land use by end of Conceptual Period, in Ha	Post Mining Land Use
1	Area under Mining	212.270	The minedout quarry shall be developed into a water reservoir.
2	Waste Dump site	56.900	Plantation shall be developed over the waste dump in a phased manner.
3	Mineral storage	19.190	Regrassing shall be developed over the area after cessation of mining activities.
4	Infrastructure	4.650	This area shall be left as it is for future utilisation by concerned authorities or will be dismantled.
5	Roads	10.850	The area shall be left as it is for future utilisation by concerned authorities & Public.
6	Safety Zone and Green Belt	6.469	Status shall be maintained.
7	Mineral Separation Plant (Crushing, Screening Unit & Slurry Pipeline)	29.380	This area shall be left as it is for future utilisation by concerned authorities or will be dismantled.

339.709 Ha

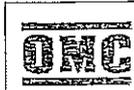
B. UNDERGROUND MINING

Not applicable


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Guali Iron Ore Block
Odisha Mining Corporation Ltd

Mining Plan &
Progressive Mine Closure Plan



Dump-sites selected for disposal of the waste have been considered after considering the following criteria.

1. All dump sites have been located outside the mineralized zone beyond ultimate pit limit based on the present exploration data.
2. Topography features have been taken into account, particularly in the context of water drainage and availability of relatively flat ground.
3. Initially the natural depression has been planned to be leveled upto adjoining ground level & then terracing will be carried out.

A total of 9.5 Million CuM of wastes will be generated from entire Guali Iron ore Block up to conceptual stage out of which 6.29 Million Cum will be generated during the plan period and the rest 3.21 Million CuM during conceptual period.

The height & width of individual terrace has been considered as 15 m & 15 m respectively with a bench slope angle of 37°. Year-wise waste generation up to end of mine life is given below.

In Million CuM

Year	Topadih (Block - A)	Baliasahi (Block-B)	Total
First 5 Years of the Plan Period (2020-21 to 2024-25)	3.976	2.316	6.29
Beyond Plan period till Conceptual	3.21		3.21
Total up to Conceptual	9.5		

The management of overburden dumping during conceptual period has been furnished below:

Tentative Year of dumping	Quantity of waste for dumping @ 70%, (Million CuM)	Road maintenance @ 30%, (Million CuM)	Total (Million CuM)	Top RL (m)	Bottom RL (m)	Grid Location
First 5 Years of the Plan Period (2020-21 to 2024-25)	4.4	1.89	6.29	590	535	Proposed waste dump – A N-2433403 to N-2433713 E-323200 to E-323795
Beyond Plan period till Conceptual period	2.24	0.97	3.21	620 640	535	Proposed waste dump – A N-2433340 to N-2433750 E-323168 to E-324050 & Proposed waste dump – B N-2432672 to N-2433313 E-323098 to E- 323642
Total	6.64	2.86	9.5			

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Bhubaneswar



Disposal of Mineral Rejects:

Material containing 45-55% Fe has been considered as mineral rejects. A total of 22.06 Million Tonnes of mineral reject will be generated up to conceptual stage. Year-wise generation of sub grade is given below.

In Million Tonnes

Year	Topadih (Block - A)	Baliasahi (Block-B)	Total
First 5 Years of the Plan Period (2020-21 to 2024-25)	9.478	1.995	11.473
Beyond Plan period till Conceptual	10.587		10.587
Total up to Conceptual	22.06		

The mineral reject generated will be blended with Ore in proportionately to get desired salable grade. Mineral Rejects/Sub grade ore can be sold directly, as per market requirement in future. However, an area of 8.46 Ha in two locations has been designated for mineral reject within the lease hold area for temporary storage. Further the mineral reject generated during the conceptual period will be temporarily stacked and then blended and sold.

Waste Disposal:

The waste generated during mining operation comprises of laterite, shale and overburden (OB) occurring at the top profile of ore zone. These waste materials are dumped at the earmarked non-mineralized areas in a retreating manner by forming number of terraces and compacting it by use of dozer. Precautionary measures like retaining walls, garland drains, settling ponds, plantation on matured slopes of waste dumps, mineral stacks etc have been proposed. Presently, there are two waste dumps present in the lease area out of which temporary waste dump – 2 will be removed from third year onwards for advancement of mining during the plan period.

Further one more waste dump (Waste Dump-A) will be created along the co-ordinates N-2433403 to N-2433713E-323200 to E-323795 during the plan period over an area of 20.18 Ha. The same dump will be extended and utilized to accommodate the waste generated during the conceptual period also over an area of 28.97 Ha along N-2433340 to N-2433767 and E-323168 to E-324050. Further one more dump (Waste Dump-B) will be created along N-2432659 to N-2433313 and E-323098 to E- 323642 over an area of 27.93 ha during conceptual period. Thus at the end of conceptual period the dump area will be 56.90 Ha.


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Annexure-XIV:

Sl. No.	Description	Land use by end of Conceptual period as per mining plan approved by IBM, in Ha	Land details as proposed in the diversion proposal including already approved forest area	Remarks
1.	Area under Mining **	212.270	214.486 (82.649+36.837+95)	The mined out quarry shall be developed into a water reservoir.
2.	Storage of topsoil	0.00	0.00	-
3.	Waste Dump Site	56.900	51.161 (49.051+2.11)	Plantation shall be developed over the waste dump in a phased manner.
4.	Mineral storage	19.190	16.732	Re-grassing shall be developed over the area after cessation of mining activities.
5.	Infrastructure, Workshop, admin Building etc.	4.650	4.295	This area shall be left as it is for future utilization by concerned authorities or will be dismantled.
6.	Roads	10.850	9.819	The area shall be left as it is for future utilization by concerned authorities & public.
7.	Railways	0	0	-
8.	Safety Zone/ Green belt *	6.469	6.469	Status shall be maintained.
9.	Trailing pond	0	0	-
10.	Effluent Treatment Plant	0	0	-
11.	Mineral Separation Plant (Crushing, Screening Unit & Slurry Pipeline)	29.380	27.873	This area shall be left as it is for future utilization by concerned authorities or will be dismantled.
12.	Township area	0	0	-
13.	Forest Area (Diverted) not used by earlier lessee	0	0	-
14.	Area retained for Plantation	0.763	0	-
	Total area of utilization	340.472	330.835	
	Other Un-utilization Area	17.786	27.423 (6.184+4.15+1.097+5.433+10.559)	This area will be kept as unutilized.
15.	Grand Total	358.258	358.258	

GUALI IRON ORE BLOCK

Over an area of 358.258 Ha (as per DGPS)/ 365.026 Ha (as per RoR)
in Village Guali, Panduliposi etc under Barbil Tahasil of Keonjhar district

MINING PLAN

(For the period from 2020-21 to 2024-25)

Under Rule 16 (1) of Minerals (Other than Atomic and Hydro Carbons Energy
Minerals) Concession Rule, 2016

PROGRESSIVE MINE CLOSURE PLAN

Under Rule 23 of Mineral Conservation and Development Rules, 2017

Lessee Details	Odisha Mining Corporation Limited OMC House, Bhubaneswar - 751001, District: Khurda, State: Odisha E-mail: info@orissamining.com Tel: 0674-2377400 & 2377401, Fax No: (0674) 2580145/020
ML Area	Lease Area: 358.258 Ha (as per DGPS)/ 365.026 Ha (as per RoR) Govt Land: 88.434 Ha Forest Land: 229.524 Ha Pvt. Land: 40.3 Ha
Category of Mine: Fully Mechanised (FM)	Date of Execution of the ML: 12.01.2021 Date of Expiry of the ML: 11.01.2031 Lease Period: 10 Years
Registration no under Rule 45 of MCDR 2017: IBM/4269/2011 Mine Code No: 30ORI08126	

TEXT

Prepared by Qualified Persons

Sri Pradip Kumar Sahoo, B. Tech. in Mining Engineering
Sri Subrat Kumar Behera, M. Sc & M. Phil in Geology

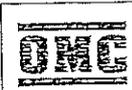


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Guali Iron Ore Block
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Mining Plan &
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The year wise development & production quantity in million tonnes for the period from 2020-21 to-2024-25 is given below.

Year	Quarry	ROM Production Quantity in million Tonnes	Saleable Ore Production Quantity in million Tonnes	Mineral Reject Production Quantity in million Tonnes	Waste (OB/IB/Top Soil) Development Quantity in Million Cum.	Stripping Ratio (Tons/Cum.)
1 st Year (12.01.20 21 to 31.03.20 21)	Topadih (Block-A)	0.48	0.474	0.006	0.00	NA
	Baliasahi (Block-B)	0.00	0.00	0.00	0.00	NA
Sub Total		0.48	0.474	0.006	0.00	NA
2 nd Year 2021-22	Topadih (Block-A)	5.7	4.69	1.01	0.04	NA
	Baliasahi (Block-B)	0.00	0.00	0.00	0.00	NA
Sub Total		5.7	4.69	1.01	0.04	1:0.007
3 rd Year 2022-23	Topadih (Block-A)	19.97	16.96	3.01	0.91	1:0.046
	Baliasahi (Block-B)	10.03	8.80	1.23	0.05	1:0.005
Sub Total		30.00	25.76	4.24	0.96	1:0.032
4 th Year 2023-24	Topadih (Block-A)	20.07	16.70	3.37	1.33	1:0.07
	Baliasahi (Block-B)	9.93	9.65	0.28	0.38	1:0.04
Sub Total		30.00	26.35	3.65	1.71	1:0.057
5 th Year 2024-25	Topadih (Block-A)	19.33	17.25	2.08	1.89	1:0.098
	Baliasahi (Block-B)	10.67	10.19	0.48	1.95	1:0.18
Sub Total		30.00	27.44	2.56	3.84	1:0.128
Grand Total		96.18	84.72	11.46	6.55	1:0.068

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II. Dump re-handling (for the purpose of recovery of mineral):

There is no proposal for waste dump re-handling (for the purpose of recovery of mineral) during the proposed Mining Plan period.

- c) Enclose Individual year wise development plans and sections showing pit layouts, dumps, stacks of mineral reject, if any, etc in case of 'A' category mines

On account of exposures of iron ore and its depth of occurrence, opencast method of mining will be continued on three shift basis with the deployment of drills, associated compressors, dumpers, excavators and other auxiliary equipment for development, production, processing, protection of environment and safety. Separate year wise development plan along showing pit layouts, dumps, stacks of mineral rejects along with sections are attached.

Development during 2020- 21

Topodihi Quarry:

During the first year (2020-21) of the plan period mine working will be carried out in topodihi block to achieve the required grade of production of 0.479 Million Tonnes of ROM along N- 2432990 to N- 2433100, E- 325596 - E-325707. The haul road has been proposed to be developed and maintained for transportation of ore & waste. The gradient of haul road will be maintained at 1 in 16. The Year-wise details layout of the proposed quarry & sections are indicated in development plan & sections development plans are shown in Plate No 06 A to F. The year-wise pit development sections are shown in Plate No 07 A to F.

For the achievement of the required production, it has been planned to develop the quarries as following:

Quarry Layouts		Topadihi Quarry Block-A
Bench Geometry	Height	15m
	Width	30 m or more than the height.
	Individual bench slope angle	80°
Road design	Average width of the haul road	30m
	Gradient of Haul road	1 in 16
	Ramp Gradient	1 in 10
	Berm height	1.0 m
Quarry development	Location of development	N- 2432963 to N- 2433230, E- 325595 - E-325887
	Sections considered for development	GG' (2433150 N) & H H' (2433050 N)
	Benches considered for development with RL	545m RL to 590 m RL

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Exploration:

During the first five years of the plan period from 2020-21 to 2024-25, 215 nos. of benches have been proposed to convert the entire lease area into G1 Category. Beyond current plan period, further exploration shall be proposed to augment resource.

Ultimate Extent & Size of the Pit

Guali Iron ore block exposes iron ore, BHJ, Shale etc. Keeping in view the ore occurrences, safety zone, ultimate pit limit has been delineated. There will be two quarries at the end of the life of the mine. As per the exploration data, an area 155.17 Ha will be utilized for mining of iron ore. Besides 57.10 Ha is proposed for exploration which will be converted into mining and allied activities in future. Thus the total mining area will become 212.27 Ha. The details of benches are with their R.L, extent and area to be covered are given below:

Name of the quarry	Location	Extent of the quarry				
		Length (m)	Width (m)	Area (m ²)	Top RL	Bottom RL
Topodihi quarry	N-2432695 to N-2433807 E-325176 to E-326182	1023	981	1003563	554	446
Baliasahi quarry	N-2432656 to N-2433390 E-323219 to E-324808	700	783	548136	554	446

Further, the Topodihi nalla passing within the ML area is proposed for diversion during the conceptual period for merging of both the pits i.e. Topodihi pit and Baliasahi pit. This will enhance the mineable reserve and the life of mine.

Note: Besides 57.10 Ha is proposed for exploration which will be converted into mining and allied activities in future. Thus the total mining area during conceptual will become 212.27 Ha.

Final slope angle at the close of mine:

The individual bench slope would be kept nearly vertical, height and width of the benches would be kept at 12m each. The final slope angle of the pit will be 45° at the end of the life of the mine.

Ultimate Pit Limit Boundaries

The ultimate pit limit boundaries have been earmarked in the conceptual plan and conceptual sections. (Plate No-8 and 9)


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Guali Iron Ore Block
Odisha Mining Corporation Ltd

Mining Plan &
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Disposal of Mineral Rejects:

Material containing 45-55% Fe has been considered as mineral rejects. A total of 22.06 Million Tonnes of mineral reject will be generated up to conceptual stage. Year-wise generation of sub grade is given below.

In Million Tonnes

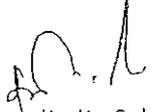
Year	Topadih (Block - A)	Baliasahi (Block-B)	Total
First 5 Years of the Plan Period (2020-21 to 2024-25)	9.478	1.995	11.473
Beyond Plan period till Conceptual	10.587		10.587
Total up to Conceptual	22.06		

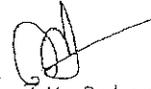
The mineral reject generated will be blended with Ore in proportionately to get desired salable grade. Mineral Rejects/Sub grade ore can be sold directly, as per market requirement in future. However, an area of 8.46 Ha in two locations has been designated for mineral reject within the lease hold area for temporary storage. Further the mineral reject generated during the conceptual period will be temporarily stacked and then blended and sold.

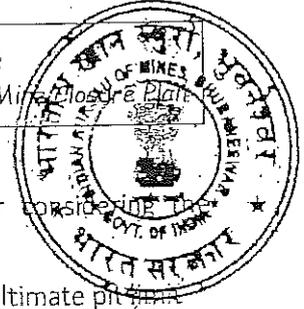
Waste Disposal:

The waste generated during mining operation comprises of laterite, shale and overburden (OB) occurring at the top profile of ore zone. These waste materials are dumped at the earmarked non-mineralized areas in a retreating manner by forming number of terraces and compacting it by use of dozer. Precautionary measures like retaining walls, garland drains, settling ponds, plantation on matured slopes of waste dumps, mineral stacks etc have been proposed. Presently, there are two waste dumps present in the lease area out of which temporary waste dump – 2 will be removed from third year onwards for advancement of mining during the plan period.

Further one more waste dump (Waste Dump-A) will be created along the co-ordinates N-2433403 to N-2433713E-323200 to E-323795 during the plan period over an area of 20.18 Ha. The same dump will be extended and utilized to accommodate the waste generated during the conceptual period also over an area of 28.97 Ha along N-2433340 to N-2433767 and E-323168 to E-324050. Further one more dump (Waste Dump-B) will be created along N-2432659 to N-2433313 and E-323098 to E- 323642 over an area of 27.93 ha during conceptual period. Thus at the end of conceptual period the dump area will be 56.90 Ha.


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General Manager(Geol
Power of Attorney Holder
Odisha Mining Corporation Lt
Bhubaneswar



Dump-sites selected for disposal of the waste have been considered after following criteria.

1. All dump sites have been located outside the mineralized zone beyond ultimate pit based on the present exploration data.
2. Topography features have been taken into account, particularly in the context of water drainage and availability of relatively flat ground.
3. Initially the natural depression has been planned to be leveled upto adjoining ground level & then terracing will be carried out.

A total of 9.5 Million CuM of wastes will be generated from entire Guali Iron ore Block up to conceptual stage out of which 6.29 Million Cum will be generated during the plan period and the rest 3.21 Million CuM during conceptual period.

The height & width of individual terrace has been considered as 15 m & 15 m respectively with a bench slope angle of 37°. Year-wise waste generation up to end of mine life is given below.

In Million CuM

Year	Topadih (Block - A)	Baliasahi (Block-B)	Total
First 5 Years of the Plan Period (2020-21 to 2024-25)	3.976	2.316	6.29
Beyond Plan period till Conceptual	3.21		3.21
Total up to Conceptual	9.5		

The management of overburden dumping during conceptual period has been furnished below:

Tentative Year of dumping	Quantity of waste for dumping @ 70%, (Million CuM)	Road maintenance @ 30%, (Million CuM)	Total (Million CuM)	Top RL (m)	Bottom RL (m)	Grid Location
First 5 Years of the Plan Period (2020-21 to 2024-25)	4.4	1.89	6.29	590	535	Proposed waste dump – A N-2433403 to N-2433713 E-323200 to E-323795
Beyond Plan period till Conceptual period	2.24	0.97	3.21	620 640	535	Proposed waste dump – A N-2433340 to N-2433750 E-323168 to E-324050 & Proposed waste dump – B N-2432672 to N-2433313 E-323098 to E- 323642
Total	6.64	2.86	9.5			

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Subrat Ku Behera

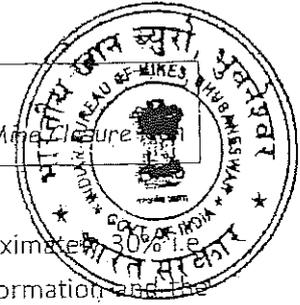
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ODISHA
NEW OPPORTUNITIES

Guali Iron Ore Block
Odisha Mining Corporation Ltd

Mining Plan &
Progressive Mine Closure



Out of the total 9.5 Million CuM of waste generated up to conceptual, approximately 2.85 Million CuM will be utilized for road formation, maintenance and bund formation, remaining 6.65 Million CuM shall be utilized for development and remaining waste will be dumped at proposed dump location during the conceptual period.

The garland drains will be dug around 1 m beneath the adjoining contour level at the lower peripheral areas of the dump. The width of the drains shall be around 1.5 m. A series of settling pits will be provided to arrest the wash-off solid particles.

The retaining walls will be of 1.5m height and 1.2 m width at the top and around 1.5m at the base. Besides, it is also proposed to stabilize the existing dead waste dump with bio-degradable coir geo textile made of coconut fibre or husk. It facilitates new vegetation by absorbing water and preventing topsoil from drying out. Seeding or plantation is done after blanketing the coir matting on the dump slope. They provide dump soil good support allowing natural vegetation to become established.

The OB dumps areas will be compacted and afforestation will be carried out on the terraces as well as along the slopes after spreading a layer of top soil over it before rehabilitation. The location of the external dump is marked on Conceptual Plan. Refer Plate No 08. Top soil being generated during mining shall be used for rehabilitation & also for avenue plantation.

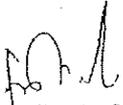
Waste dumps will be afforested/ re-grassed to check wash off. Waste dumps will be guarded with retaining walls at their toes along the lower contours. Following the retaining wall a garland drain will be developed for carrying water to the natural drainage system. Settling pits have also been proposed in the drains to arrest solid particles.

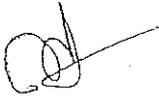
Environmental Monitoring:

Noise, air, water and other environmental parameters will be monitored periodically to have a close check on the environmental parameters. Spraying of water on haul roads, use of wet drilling techniques & prevention of vibration by utilization of minimum quantity of explosive per delay will be carried out.

Land Use Planning:

The land use pattern at the start of the Plan period, at the end of first five years and at the end of conceptual period is given in the below table.


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